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THE TWO BOOKS

OF FRANCIS BACON,

OF THE PROFICIENCE

AND ADVANCEMENT

OF LEARNING,

DIVINE AND HUMAN.

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TO THE KING.

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PREFACE.

In the year 1605 Francis Bacon revealed to the world his great scheme for rebuilding the Sciences, in these two books dedicated to James I.

He was now in the 44th year of his age; and it appears by some of his imperfect pieces, and by his letters, that he had long conceived the design of this work: for in a letter to the Lord Treasurer Burghley, in 1591, he thus solicits his patronage.—"Again the meanness of my estate doth somewhat move me: for though I cannot accuse myself that I am either prodigal or slothful, yet my health is not to spend, nor my course to get: Lastly, I confess that I have as vast contemplative ends as I have moderate civil ends: for I have taken all knowledge to be my province; and if I could purge it of two sorts of rovers, whereof the one with frivolous disputations, confutations, and verbosities, the other with blind experiments, and auricular traditions and impostures, hath committed so many spoils, I hope I should bring in industrious observations, grounded conclusions, and profitable inventions and discoveries,—the best state of that province. This, whether it be curiosity, or vain-glory, or nature, or, if one take it favourably, *philanthropia*, is so fixed in my mind as it cannot be removed. And I do easily see that place of any reasonable countenance doth bring commandment of more wits than a man's own; which is the thing I greatly affect." *(a)* —and in a letter to Lord Essex, in 1596, he declares his purpose not to follow the practice of

(a) Birch's Edit. 1765. pa. 178. vol. iii.

the law—" because it drinketh too much time, which I have dedicated to better purposes." *(a)*

Yet under Elizabeth he never ceased to aspire to civil honors; for which he exhausted in vain all the arts of obsequiousness and adulation. His abilities were thought too great for high place; they were commended with envy, and employed without promotion.

Even after the accession of James I. he seems disposed to abandon the pursuit of power: as appears by a letter, dated July 1603, the very year of his knighthood:—" My ambition now I shall only put upon my pen, whereby I shall be able to maintain memory and merit of the times succeeding." *(b)* —This work however, appearing two years after, was too well calculated to please a pedant King: and Bacon, by his unrivalled talents and unexampled servility, deserved and obtained the favor of his master. In the course of 17 years he wound his way, by nine successive steps in dignity and office, to the highest place of a subject. *(c)*

During all this time, though immersed in civil business, he applied himself to Philosophy with unabated vigour. Wishing to publish his work to all nations, and to perpetuate it through all ages, he desired a Latin version of it; and some time before the year 1608, (for the letter is not dated) sent the following request to his friend, the Margaret Professor of Divinity in the University of Cambridge.

Mr. Dr. Playfere. *(d)*

A great desire will take a small occasion to hope and put in trial that which is desired. It pleased you a good while since, to express unto me the good liking which you conceived of my Book of the Advancement of Learning; and that more significantly, (as it seemed to me) than out of courtesy

(a) Vol. iii. p. 194. *(b)* Vol. iii. p. 461.
(c) Letter to the King. vol. iii. p. 406.
(d) Vol. iii. p. 230.

or civil respect. My self, as I then took contentment in your approbation thereof, so I should esteem and acknowledge not only my contentment increased, but my labours advanced, if I might obtain your help in that nature which I desire. Wherein before I set down in plain terms my request unto you, I will open my self what it was which I chiefly sought and propounded to my self in that work; that you may perceive that which I now desire to be pursuant thereupon. If I do not much err, (for any judgment that a man maketh of his own doings had need be spoken with a *Si nunquam fallit Imago,*) I have this opinion, that if I had sought mine own commendation, it had been a much fitter course for me to have done as Gardeners used to do, by taking their seed and slips, and rearing them first into plants, and so uttering them in pots, when they are in flower, and in their best state. But for as much as my end was *Merit* of the State of Learning (to my power) and not *Glory;* and because my purpose was rather to excite other men's wits than to magnify mine own, I was desirous to prevent the uncertainness of mine own life and times, by uttering rather seeds than plants; nay and further, (as the Proverb is) by sowing with the basket, rather than with the hand: wherefore, since I have only taken upon me to ring a bell, to call other wits together, (which is the meanest office) it cannot but be consonant to my desire to have that bell heard as far as can be. And since they are but sparks which can work but upon matter prepared, I have the more reason to wish that those sparks may fly abroad, that they may the better find and light upon those minds and spirits which are apt to be kindled. And therefore, the privateness of the language considered, wherein it is written, excluding so many readers; as on the other side, the obscurity of the argument in many parts of it excludeth many others; I must account it a second birth of that work, if it might be translated into Latin, without manifest loss of the sense and matter. For this purpose I could not represent to my self any man into whose hands I do

more earnestly desire that work should fall than your self; for by that I have heard and read, I know no man a greater master in commanding words to serve matter. Nevertheless, I am not ignorant of the worth of your labours, whether such as your place and profession imposeth, or such as your own virtue may upon your voluntary election take in hand. But I can lay before you no other persuasions than either the work it self may affect you with; or the honour of his Majesty, to whom it is dedicated; or your particular inclination to my self; who, as I never took so much comfort in any labours of mine own, so I shall never acknowledge my self more obliged in any thing to the labours of another, than in that which shall assist it. Which your labour, if I can by my place, profession, means, friends, travel, work, deed, requite unto you, I shall esteem my self so straitly bound thereunto, as I shall be ever most ready both to take and seek occasion of thankfulness. So leaving it, nevertheless *Salvâ Amicitiâ*, as reason is, to your good liking, I remain.

Archbishop Tenison informs us, in his Baconiana, that Playfere sent a specimen of such superfine Latinity, that Bacon did not encourage him to proceed. Still he did not relinquish his purpose; though too much occupied with civil affairs, and with the other parts of his great plan to accomplish it himself: but he repeats his wish in a letter to his friend Tobie Matthew—"I must confess my desire to be that my writings should not court the present time, or some few places, in such sort as might make them either less general to persons, or less permanent to future ages." *(a)*—and in another to the same, dated 1609, on sending him part of the *Instauratio Magna*, he says—"It doth more fully lay open that the question between me and the antients is not of the virtue of the race, but of the rightness of the way." *(b)*—In his letter to Casaubon, Oct. 1609, he says—"*magis videor cum antiquis versari quàm cum his quibuscum vivo.* *(c)*

(a) Vol. iii. p. 247. *(b)* Vol. iii. p. 246.
(c) Vol. iii. p. 462.

Before the Latin version of this work appeared, he presented to the King, in 1620, the second part of his *Instauratio Magna*, entitled *Novum Organum*, with a letter, in which he says——" I hear my former book of the Advancement of Learning is well tasted in the Universities here, and the English Colleges abroad; and this is the same argument sunk deeper." *(a)*

The next year, in the full sunshine of reputation and power, he was suddenly overclouded with disgrace. In his mal-practices originates the jurisdiction of the House of Lords in Appeals. The first petition preferred, and the first heard and determined, were both levelled against the Lord Chancellor Bacon, for corruption and other misbehaviour. *(b)* He made no defence against the charge of having sold the decrees of equity. In his memorial of access to the King, in 1622, his confession is full—" of my offences far be it from me to say—*dat veniam corvis, vexat censura columbas*—but I will say that I have good warrant for—" they were not the greatest offenders in Israel, on whom the wall of Shilo fell." *(c)*—As he had been the willing tool, he was now the unpitied victim of a capricious tyrant and an insolent minion; from whom he was reduced to beg the remission of a just sentence.

To estimate the severity of his punishment, we must remember not only his exalted place, but his great name,—" who can see worse days than he that yet living doth follow at the funerals of his own reputation." *(d)*

He fell, like Antæus, only to renew his strength: and the labours of the last five years of his life, under ignominy and want, have almost obliterated the memory of his misdeeds.

He quitted a dangerous authority to become indeed the " Servant of Posterity," and to perfect for their lasting benefit his immortal works. In a letter to Tobie Matthew, he says,—" It is true my

(a) Vol. iii. p. 584. *(b)* Blackstone. Chap. 27. Book iii.
(c) Vol. iii. p. 630. *(d)* Bacon's Essay on Death.

labours are now most set to have those works which I had formerly published, as that of Advancement of Learning, that of Henry VII. that of the Essays, being retractate and made more perfect, well translated into Latin by the help of some good pens, which forsake me not: for these modern languages will at one time or other play the bankrupt with books; and since I have lost much time with this age, I would be glad, as God shall give me leave, to recover it with posterity." *(a)*

Accordingly in 1623 came out the *De Augmentis Scientiarum*, being a Latin Version of these Two Books, much enlarged; in which he was assisted by Mr. George Herbert, and the famous Philosopher of Malmesbury. *(b)* It consists of nine books: the first is nearly a literal translation of the first book of this work; the other eight, divided into 46 Chapters, comprise the second book: but great additions are made throughout, especially to the subjects of Rhetoric, Laws, and Government.

In 1640, was published a translation of the *De Augmentis* by Dr. Gilbert Wats, at Oxford; which, Dr. Tenison tells us, was considered by many as so defective and spiritless a performance, that Dr. Rawley, Lord Bacon's chaplain, was solicited to give a better. No other appeared till Dr. Shaw, in 1733, published his abridgment of Bacon's Philosophical works; in which he professes to give not a "direct translation, but a kind of open version in modern English," and to omit "certain personal addresses, compliments, exordiums, and the like," in order to shorten the works: yet he encumbers his translation with frivolous notes.—He does not observe the method of the original; but divides the introductory matter, the first book, and the proem to the second book, into four preliminary sections, and the eight remaining books into 28 sections.

While the *De Augmentis Scientiarum* spreads the fame of Bacon among the learned of all nations, this the original draught of that immortal work is almost

(a) Vol. iii. p. 642. *(b)* See Tenison's Baconiana and the Life of Hobbes.

neglected; and the illustrious Author is known to the greater part of his own countrymen only by his Essays.—We find but three separate editions of this work;—the 1st at London, in 1605:—the 2d at London, in 1629, (three years after the death of Bacon,) and the 3d at Oxford, in 1633.

This is corrected from the original edition of 1605; numerous errors having crept into many of the later editions, especially in the Latin quotations.

In the first edition, the subjects are distinguished by Capitals or Italics introduced into the text, with a few marginal notes in Latin: in this, the more convenient method of General Titles and a perpetual marginal Index will facilitate a comparison with the Latin Version and the Translations.

An important interval of 18 years preceded it's republication in Latin; during which the author fell from the height of prosperity into the abyss of wretchedness; and in which he found leisure to make many improvements. Yet does he say (in his memorial of access to the King,) "My story is proud. I may thank your Majesty:—for I heard him note of Tasso, that he could know which poem he made when he was in good condition, and which when he was a beggar. I doubt he could make no such observation of me."—Nor do the subsequent alterations much diminish the value of this work; which will ever be esteemed as a composition of extraordinary elegance, at an early period of our literature; and as the first production of so great a genius, in his native tongue, and in the maturity of his years; every page of which is stamped with the character of it's author—of a man of wonderful endowments, uniting in a rare degree experience with learning, the active with the contemplative life.

Conscious of great failings and great performances, in humility mixed with dignity, he thus puts himself upon posterity—"for my name and memory, I leave it to men's charitable speeches, and to foreign nations, and the next ages." *(a)*—The consenting

(a) See his Will.

voice of all the studious and the wise justifies the noble confidence of this appeal. We cite only the learned and witty Ben Jonson, the elegant and judicious Addison, the scientific and ingenuous d'Alembert.

" One, though he be excellent, and the chief, is not to be imitated alone: for never no imitator ever grew up to his author: Likeness is always on this side Truth. Yet there happened in my time one noble Speaker, who was full of gravity in his speaking. *(a)* His language, (where he could spare or pass by a jest) was nobly censorious. No man ever spake more neatly, more prestly, more weightily, or suffered less emptiness, less idleness in what he uttered. No member of his speech but consisted of his own graces. His hearers could not cough, or look aside from him without loss. He commanded where he spoke; and had his judges angry and pleased at his devotion. No man had their affections more in his power. The fear of every man that heard him was lest he should make an end.

Cicero is said to be the only wit that the people of Rome had equalled to their empire:—*ingenium par imperio.*—We have had many; and in their several ages, (to take in but the former *seculum)* Sir Thomas More, the elder Wyat, Henry Earl of Surrey, Chaloner, Smith, Eliot, B. Gardiner, were for their times admirable; and the more, because they began eloquence with us. Sir Nic. Bacon was singular, and almost alone, in the beginning of Q. Elizabeth's time. Sir Philip Sidney and Mr. Hooker, in different matters, grew great masters of wit and language; and in whom all vigour of invention and strength of judgment met: the Earl of Essex noble and high; and Sir Walter Raleigh not to be contemned either for judgment or style: Sir Henry Savile grave and truly lettered; Sir Edwin Sands excellent in both; Lord Egerton, the Chancellor, a grave and great orator, and best when he was provoked. But his learned and able, though unfortunate successor, is he who hath filled up all numbers; and performed

(a) Lord Verulam.

that in our tongue which may be compared or preferred either to insolent Greece, or haughty Rome. In short, within his view, and about his times, were all the wits born that could honour a language, or help study. Now things daily fall: wits grow downward, and Eloquence grows backward: so that he may be named and stand as the mark and ακμη of our Language.—

I have ever observed it to have been the office of a wise patriot, among the greatest affairs of the state, to take care of the Commonwealth of Learning. For schools, they are Seminaries of state; and nothing is worthier the study of a statesman, than that part of the republic which we call the Advancement of Letters. Witness the care of Julius Cæsar, who in the heat of the civil war writ his books of Analogy, and dedicated them to Tully.——This made the late Lord St. Albans entitle his work *Novum Organum*: which though by the most of superficial men, who cannot get beyond the title of Nominals, it is not penetrated or understood, it really openeth all defects of Learning whatsoever, and is a book *Qui longum noto scriptori prorogat ævum.*—

My conceit of his person was never increased toward him by his place or honours; but I have and do reverence him for the greatness that was only proper to himself; in that he seemed to me ever, by his work, one of the greatest men, and most worthy of admiration, that had been in many ages. In his adversity I ever prayed that God would give him strength; for greatness he could not want: neither could I condole in a word or syllable for him; as knowing no accident could do harm to Virtue, but rather help to make it manifest."

Ben. Jonson. Discoveries, p. 701.

" I shall, in this paper, only instance Sir Francis Bacon, a man who, for greatness of genius, did honour to his age and country; I could almost say to human nature itself. He possessed at once all those extraordinary talents, which were divided amongst

the greatest Authors of Antiquity. He had the sound, distinct, comprehensive knowledge of Aristotle, with all the beautiful lights, graces, and embellishments of Cicero. One does not know which to admire most in his writings, the strength of reason, force of style, or brightness of imagination."

Tatler, No. 267.

"One of the most extensive and improved geniuses we have had instance of in our own nation, or in any other, was that of Sir Francis Bacon, Lord Verulam. This great man, by an extraordinary force of nature, compass of thought, and indefatigable study, had amassed to himself such stores of knowledge as we cannot look upon without amazement. His capacity seemed to have grasped all that was revealed in books before his time; and, not satisfied with that, he began to strike out new tracks of science, too many to be travelled over by any one man, in the compass of the longest life. These therefore he could only mark down, like imperfect coastings on maps, or supposed points of land, to be further discovered and ascertained by the industry of after-ages, who should proceed upon his notices or conjectures."

Spectator, No. 554.

Pendant que des adversaires peu instruits ou mal-intentionnés faisoient ouvertement la guerre a la Philosophie, elle se refugioit, pour ainsi dire, dans les ouvrages de quelques grands hommes, qui sans avoir l'ambition dangereuse d'arracher le bandeau des yeux de leurs contemporains préparoient de loin dans l'ombre et le silence la lumiere dont le monde devoit être éclairé peu a peu et par degrés insensibles. A la tête de ces illustres personnages doit être placé l'immortel Chancelier d'Angleterre, François Bacon, dont les ouvrages si justement estimés, et p'us estimés pourtant qu'ils ne sont connus, méritent encore plus notre lecture que nos éloges. A considérer les vues

saines et étendues de ce grand homme, la multitude d'objets sur lesquels son esprit s'est porté, la hardiesse de son style, qui réunit par-tout les plus sublimes images avec la précision la plus rigoureuse, on seroit tenté de le regarder comme le plus grand, le plus universel, et le plus éloquent des Philosophes. Bacon, né dans le sein de la nuit la plus profonde, sentit que la Philosophie n'étoit pas encore, quoique bien des gens sans doute se flattassent d'y exceller; car plus un siecle est grossier, plus il se croit instruit de tout ce qu'il peut savoir. Il commença donc par envisager d'une vue générale les divers objets de toutes les Sciences naturelles: il partagea ces Sciences en différentes branches, dont il fit l'énumération la plus exacte qu'il lui fût possible: il examina ce que l'on savoit deja sur chacun de ces objets; et fit le catalogue immense de ce qui restoit à découvrir: c'est le but de son ouvrage,—De la dignité et de l'accroissement des connoissances humaines. Dans son Nouvel Organe des Sciences il perfectionne les vues qu'il avoit données dans le premier ouvrage; il les porte plus loin, et fait connoitre la nécessité de la Physique expérimentale, à laquelle on ne pensoit point encore. Ennemi des systêmes, il n'envisage la Philosophie que comme cette partie de nos connoissances qui doit contribuer à nous rendre meilleurs ou plus heureux: il semble la borner à la science des choses utiles, et recommande par-tout l'étude de la nature. Ses autres écrits sont formés sur le même plan; tout, jusqu'a leurs titres, y annonce l'homme de génie, l'esprit qui voit en grand. Il y recueille des faits, il y compare des expériences, il en indique un grand nombre à faire; il invite les savans à etudier et a perfectionner les arts, qu'il regarde comme la partie la plus releveé et la plus essentielle de la Science humaine: il expose avec une simplicité noble ses conjectures et ses pensées sur les differens objets dignes d'intéresser les hommes; et il eût pû dire, comme ce vieillard de Terence, que rien de ce qui touche l'humanité ne lui étoit étranger. Science de la nature, morale, politique, œconomique, tout semble avoir été du ressort de cet esprit lumineux et profond: et l'on ne sait ce qu'on

doit le plus admirer, ou des richesses qu'il répand sur tous les sujets qu'il traite, ou de la dignité avec laquelle il en parle. Ses ecrits ne peuvent être mieux comparés qu'à ceux d'Hippocrate sur la médecine ; et ils ne seroient ni moins admirés ni moins lûs, si la culture de l'esprit étoit aussi cher aux hommes que la conservation de la santé. Mais il n'y a que les chefs de secte en tout genre, dont les ouvrages puissent avoir un certain éclat : Bacon n'a pas été du nombre ; et la forme de sa Philosophie s'y opposoit : elle étoit trop sage pour étonner personne. La Scholastique qui dominoit de son tems ne pouvoit être renversée que par des opinions hardies et nouvelles ; et il n'y a pas d'apparence qu'un Philosophe qui se contente de dire, aux hommes, " Voilà le peu que vous avez appris."—" Voici ce qui vous reste à chercher"—soit destiné a faire beaucoup de bruit parmi ses contemporains. Nous oserions même faire quelque reproche au Chancelier Bacon d'avoir été peut-être trop timide, si nous ne savions avec quelle retenue, et pour ainsi dire, avec quelle superstition, on doit juger un génie si sublime : Quoiqu'il avoue que les Scholastiques ont énervé les Sciences par leurs questions minutieuses, et que l'esprit doit sacrifier l'étude des êtres généraux a celle des objets particuliers, il semble pourtant par l'emploi fréquent qu'il fait des termes de l'école, quelque fois même par celui des principes Scholastiques, et par des divisions et subdivisions dont l'usage étoit alors fort a la mode, avoir marqué un peu trop de ménagement ou de déférence pour le goût dominant de son siecle. Ce grand homme, après avoir brisé tant de fers, étoit encore retenu par quelques châines qu'il ne pouvoit ou n'osoit rompre.

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TO SIR THOMAS BODLEY.

Sir,

I think no man may more truly say, with the Psalm, *Multum incola fuit anima mea*, than myself; for I do confess since I was of any understanding, my mind hath in effect been absent from that I have done: and in absence are many errors, which I do willingly acknowledge; and amongst the rest, this great one that led the rest; that knowing myself by inward calling to be fitter to hold a book than to play a part, I have led my life in civil causes; for which I was not very fit by nature, and more unfit by the preoccupation of my mind. Therefore calling myself home, I have now for a time enjoyed myself; whereof likewise I desire to make the world partaker. My labours (if I may so term that which was the comfort of my other labours) I have dedicated to the King; desirous if there be any good in them, it may be as the fat of a sacrifice, incensed to his honour: and the second copy I have sent unto you, not only in good affection, but in a kind of congruity, in regard of your great and rare desert of learning. For Books are the Shrines where the Saint is, or is believed to be: and you having built an Ark to save Learning from Deluge, *(a)* deserve propriety in any new instrument or engine, whereby Learning should be improved or advanced. 1605.

(a) The Bodleian Library.

TO THE EARL OF SALISBURY.

IT MAY PLEASE YOUR GOOD LORDSHIP,

I present your Lordship with a work of my vacant time; which if it had been more, the work had been better. It appertaineth to your Lordship (besides my particular respects) in some propriety; in regard you are a great Governour in a province of Learning.(a) And (that which is more) you have added to your place affection towards Learning; and to your affection, judgment. Of which, the last I could be content were (for the time) less, that you might the less exquisitely censure that which I offer unto you. But sure I am, the argument is good, if it had lighted upon a good author. But I shall content myself to awake better spirits; like a bell-ringer, which is first up to call others to church. So with my humble desire of your Lordship's good acceptation, I remain. 1605.

(a) Chancellor of the University of Cambridge.

THE TWO BOOKS
OF FRANCIS BACON,
OF THE PROFICIENCE
AND ADVANCEMENT
OF LEARNING,
DIVINE AND HUMAN.
TO THE KING.

THE TWO BOOKS

OF ENGLISH HOUSE,

OF THE PROTECTION

AND ADVANCEMENT

OF LEARNING,

DIVINE AND HUMAN.

TO THE KING.

THE

FIRST BOOK OF FRANCIS BACON:

OF THE

PROFICIENCE AND ADVANCEMENT

OF

LEARNING, DIVINE AND HUMAN.

TO THE KING

THERE were under the law, excellent king, both daily sacrifices, and freewill offerings; the one proceeding upon ordinary observance, the other upon a devout chearfulness: in like manner there belongeth to kings from their servants both tribute of duty, and presents of affection. In the former of these I hope I shall not live to be wanting, according to my most humble duty, and the good pleasure of your majesty's employments: for the latter, I thought it more respective to make choice of some oblation, which might

rather refer to the propriety and excellency of your individual person, than to the business of your crown and state.

Wherefore representing your majesty many times unto my mind, and beholding you not with the inquisitive eye of presumption, to discover that which the Scripture telleth me is inscrutable, but with the observant eye of duty and admiration; leaving aside the other parts of your virtue and fortune, I have been touched, yea, and possessed with an extreme wonder at those your virtues and faculties, which the philosophers call intellectual; the largeness of your capacity, the faithfulness of your memory, the swiftness of your apprehension, the penetration of your judgment, and the facility and order of your elocution: and I have often thought, that of all the persons living that I have known, your majesty were the best instance to make a man of Plato's opinion, that all knowledge is but remembrance, and that the mind of man by nature knoweth all things, and hath but her own native and original notions (which by the strangeness and darkness of this tabernacle of the body are sequestered) again

revived and restored: such a light of nature I have observed in your majesty, and such a readiness to take flame, and blaze from the least occasion presented, or the least spark of another's knowledge delivered. And as the Scripture saith of the wisest king, *That his heart was as the sands of the sea;* which though it be one of the largest bodies, yet it consisteth of the smallest and finest portions; so hath God given your majesty a composition of understanding admirable, being able to compass and comprehend the greatest matters, and nevertheless to touch and apprehend the least; whereas it should seem an impossibility in nature, for the same instrument to make itself fit for great and small works. And for your gift of speech, I call to my mind what Cornelius Tacitus saith of Augustus Cæsar; *Augusto profluens, et quæ principem deceret, eloquentia fuit:* For, if we note it well, speech that is uttered with labour and difficulty, or speech that savoureth of the affectation of art and precepts, or speech that is framed after the imitation of some pattern of eloquence, though never so excellent; all this has somewhat servile, and hold-

ing of the subject. But your majesty's manner of speech is indeed prince-like, flowing as from a fountain, and yet streaming and branching itself into nature's order, full of facility and felicity, imitating none, and inimitable by any. And as in your civil estate there appeareth to be an emulation and contention of your majesty's virtue with your fortune; a virtuous disposition with a fortunate regiment; a virtuous expectation, when time was, of your greater fortune, with a prosperous possession thereof in the due time; a virtuous observation of the laws of marriage, with most blessed and happy fruit of marriage; a virtuous and most christian desire of peace, with a fortunate inclination in your neighbour princes thereunto: so likewise, in these intellectual matters, there seemeth to be no less contention between the excellency of your majesty's gifts of nature, and the universality and perfection of your learning. For I am well assured that this which I shall say is no amplification at all, but a positive and measured truth; which is, that there hath not been since Christ's time any king or temporal

monarch, which hath been so learned in all literature and erudition, divine and human. For let a man seriously and diligently revolve and peruse the succession of the emperors of Rome; of which Cæsar the dictator, who lived some years before Christ, and Marcus Antonius, were the best learned; and so descend to the emperors of Græcia, or of the West; and then to the lines of France, Spain, England, Scotland and the rest, and he shall find this judgment is truly made. For it seemeth much in a king, if, by the compendious extractions of other men's wits and labours, he can take hold of any superficial ornaments and shews of learning; or if he countenance and prefer learning and learned men: but to drink indeed of the true fountains of learning, nay, to have such a fountain of learning in himself, in a king, and in a king born, is almost a miracle. And the more because there is met in your majesty a rare conjunction, as well of divine and sacred literature, as of profane and human; so as your majesty standeth invested of that triplicity, which in great veneration was ascribed to the ancient Hermes; the power and fortune of a king, the know-

ledge and illumination of a priest, and the learning and universality of a philosopher. This propriety, inherent and individual attribute in your majesty, deserveth to be expressed not only in the fame and admiration of the present time, nor in the history or tradition of the ages succeeding; but also in some solid work, fixed memorial, and immortal monument, bearing a character or signature both of the power of a king, and the difference and perfection of such a king.

Object of this work.

Therefore I did conclude with myself, that I could not make unto your majesty a better oblation, than of some treatise tending to that end, whereof the sum will consist of these two parts; the former, concerning the excellency of learning and knowledge, and the excellency of the merit and true glory in the augmentation and propagation thereof: the latter, what the particular acts and works are, which have been embraced and undertaken for the advancement of learning; and again, what defects and undervalues I find in such particular acts: to the end, that though I cannot positively or affirmatively advise your majesty, or propound unto you framed

particulars; yet I may excite your princely cogitations to visit the excellent treasure of your own mind, and thence to extract particulars for this purpose, agreeable to your magnanimity and wisdom.

LEARNING, HOW DISCREDITED.

In the entrance to the former of these, to clear the way, and, as it were, to make silence, to have the true testimonies concerning the dignity of learning to be better heard, without the interruption of tacit objections; I think good to deliver it from the discredits and disgraces which it hath received, all from ignorance, but ignorance severally disguised; appearing sometimes in the zeal and jealousy of divines, sometimes in the severity and arrogancy of politicians, and sometimes in the errors and imperfections of learned men themselves.

1. Objections of divines.

I hear the former sort say, that knowledge is of those things which are to be accepted of with great limitation and caution; that the aspiring to overmuch knowledge, was

the original temptation and sin, whereupon ensued the fall of man; that knowledge hath in it somewhat of the serpent, and therefore where it entereth into a man it makes him swell; *Scientia inflat:* that Solomon gives a censure, *That there is no end of making books, and that much reading is a weariness of the flesh;* and again in another place, *That in spacious knowledge there is much contristation, and that he that increaseth knowledge increaseth anxiety;* that St. Paul gives a caveat, *That we be not spoiled through vain philosophy;* that experience demonstrates how learned men have been arch-heretics, how learned times have been inclined to atheism, and how the contemplation of second causes, doth derogate from our dependance upon God who is the first cause.

No danger from the quantity of knowledge.

To discover then the ignorance and error of this opinion, and the misunderstanding in the grounds thereof, it may well appear these men do not observe or consider, that it was not the pure knowledge of nature and universality, a knowledge by the light whereof man did give names unto other creatures in paradise, as they were brought before him, ac-

cording unto their proprieties, which gave occasion to the fall; but it was the proud knowledge of good and evil, with an intent in man to give law unto himself, and to depend no more upon God's commandments, which was the form of the temptation. Neither is it any quantity of knowledge, how great soever, that can make the mind of man to swell; for nothing can fill, much less extend the soul of man, but God, and the contemplation of God; and therefore Solomon, speaking of the two principal senses of inquisition, the eye and the ear, affirmeth that the eye is never satisfied with seeing, nor the ear with hearing; and if there be no fulness, then is the continent greater than the content: so of knowledge itself, and the mind of man, whereto the senses are but reporters, he defineth likewise in these words, placed after that calendar or ephemerides, which he maketh of the diversities of times and seasons for all actions and purposes; and concludeth thus: *God hath made all things beautiful, or decent, in the true return of their seasons: Also he hath placed the world in man's heart, yet cannot man find out the work which*

God worketh from the beginning to the end: declaring, not obscurely, that God hath framed the mind of man as a mirror, or glass, capable of the image of the universal world, and joyful to receive the impression thereof, as the eye joyeth to receive light; and not only delighted in beholding the variety of things, and vicissitude of times, but raised also to find out and discern the ordinances and decrees, which throughout all those changes are infallibly observed. And although he doth insinuate, that the supreme or summary law of nature, which he calleth, *The work which God worketh from the beginning to the end, is not possible to be found out by man;* yet that doth not derogate from the capacity of the mind, but may be referred to the impediments, as of shortness of life, ill conjunction of labours, ill tradition of knowledge over from hand to hand, and many other inconveniencies, whereunto the condition of man is subject. For that nothing parcel of the world is denied to man's inquiry and invention, he doth in another place rule over, when he saith, *The spirit of man is as the lamp of God, wherewith he searcheth the in-*

wardness of all secrets. If then such be the capacity and receipt of the mind of man, it is manifest, that there is no danger at all in the proportion or quantity of knowledge, how large soever, lest it should make it swell or out compass itself; no, but it is merely the quality of knowledge, which be it in quantity more or less, if it be taken without the corrective thereof, hath in it some nature of venom or malignity, and some effects of that venom, which is ventosity or swelling. This corrective spice, the mixture whereof maketh knowledge so sovereign, is charity, which the apostle immediately addeth to the former clause; for so he saith, *knowledge bloweth up, but charity buildeth up;* not unlike unto that which he delivereth in another place: *If I spake,* saith he, *with the tongues of men and angels, and had not charity, it were but as a tinkling cymbal;* not but that it is an excellent thing to speak with the tongues of men and angels, but because, if it be severed from charity, and not referred to the good of men and mankind, it hath rather a sounding and unworthy glory, than a meriting and substantial virtue. And as for that censure of

Solomon, concerning the excess of writing and reading books, and the anxiety of spirit which redoundeth from knowledge; and that admonition of St. Paul, *That we be not seduced by vain philosophy;* let those places be rightly understood, and they do indeed excellently set forth the true bounds and limitations, whereby human knowledge is confined and circumscribed; and yet without any such contracting or coarctation, but that it may comprehend all the universal nature of things; for these limitations are three: the first, that we do not so place our felicity in knowledge, as to forget our mortality. The second, that we make application of our knowledge, to give ourselves repose and contentment, and not distaste or repining. The third, that we do not presume by the contemplation of nature to attain to the mysteries of God. For as touching the first of these, Solomon doth excellently expound himself in another place of the same book, where he saith; *I saw well that knowledge recedeth as far from Ignorance, as light doth from darkness; and that the wise man's eyes keep watch in his head, whereas the fool roundeth about in darkness: but withal I*

The proper bounds of knowledge.

learned, that the same mortality involveth them both. And for the second, certain it is, there is no vexation or anxiety of mind which resulteth from knowledge, otherwise than merely by accident; for all knowledge, and wonder (which is the seed of knowledge) is an impression of pleasure in itself: but when men fall to framing conclusions out of their knowledge, applying it to their particular, and ministring to themselves thereby weak fears, or vast desires, there groweth that carefulness and trouble of mind which is spoken of: for then knowledge is no more *Lumen siccum*, whereof Heraclitus, the profound, said, *Lumen siccum optima anima;* but it becometh *Lumen madidum*, or *maceratum*, being steeped and infused in the humours of the affections. And as for the third point, it deserveth to be a little stood upon, and not to be lightly passed over: for if any man shall think by view and inquiry into these sensible and material things to attain that light, whereby he may reveal unto himself the nature or will of God, then indeed is he spoiled by vain philosophy: for the contemplation of God's creatures and works produceth (having regard to

The contemplation of second causes does not lead to atheism.

the works and creatures themselves) knowledge; but having regard to God, no perfect knowledge, but wonder, which is broken knowledge. And therefore it was most aptly said by one of Plato's school,—"That the "sense of man carrieth a resemblance with "the sun, which, as we see, openeth and "revealeth all the terrestrial globe; but "then again it obscureth and concealeth the "stars and celestial globe: so doth the sense "discover natural things, but it darkeneth "and shutteth up divine." And hence it is true, that it hath proceeded, that divers great learned men have been heretical, whilst they have sought to fly up to the secrets of the Deity by the waxen wings of the senses: and as for the conceit that too much knowledge should incline a man to atheism, and that the ignorance of second causes, should make a more devout dependence upon God who is the first cause; First, it is good to ask the question which Job asked of his friends: *Will you lie for God, as one man will do for another, to gratify him?* For certain it is, that God worketh nothing in nature but by second causes; and if they would have it other-

wise believed, it is mere imposture, as it were in favour towards God; and nothing else but to offer to the author of truth the unclean sacrifice of a lie. But farther, it is an assured truth, and a conclusion of experience, that a little or superficial knowledge of philosophy may incline the mind of man to atheism, but a farther proceeding therein doth bring the mind back again to religion; for in the entrance of philosophy, when the second causes, which are next unto the senses, do offer themselves to the mind of man, if it dwell and stay there, it may induce some oblivion of the highest cause; but when a man passeth on farther, and seeth the dependence of causes, and the works of providence; then, according to the allegory of the poets, he will easily believe that the highest link of nature's chain must needs be tied to the foot of Jupiter's chair. To conclude therefore: let no man, upon a weak conceit of sobriety, or an ill-applied moderation, think or maintain, that a man can search too far, or be too well studied in the book of God's word, or in the book of God's works; divinity or philosophy; but rather

let men endeavour an endless progress, or proficience in both; only let men beware that they apply both to charity, and not to swelling; to use, and not to ostentation; and again, that they do not unwisely mingle or confound these learnings together.

2. Objections of Statesmen to Learning.

And as for the disgraces which learning receiveth from politicians, they be of this nature; that learning doth soften mens minds, and makes them more unapt for the honour and exercise of arms; that it doth mar and pervert mens dispositions for matter of government and policy, in making them too curious and irresolute by variety of reading, or too peremptory or positive by strictness of rules and axioms, or too immoderate and overweening by reason of the greatness of examples, or too incompatible and differing from the times, by reason of the dissimilitude of examples; or at least, that it doth divert mens travels from action and business, and bringeth them to a love of leisure and privateness; and that it doth bring into states a relaxation of discipline, whilst every man is more ready to argue, than to obey and execute. Out of this conceit, Cato, surnamed

Instances of Cato, Virgil, and Socrates.

the Censor, one of the wisest men indeed that ever lived, when Carneades the philosopher came in embassage to Rome, and that the young men of Rome began to flock about him, being allured with the sweetness and majesty of his eloquence and learning, gave counsel in open senate, that they should give him his dispatch with all speed, lest he should infect and inchant the minds and affections of the youth, and at unawares bring in an alteration of the manners and customs of the state. Out of the same conceit, or humour, did Virgil, turning his pen to the advantage of his country, and the disadvantage of his own profession, make a kind of separation between policy and government, and between arts and sciences, in the verses so much renowned, attributing and challenging the one to the Romans, and leaving and yielding the other to the Grecians; *Tu regere imperio populos, Romane, memento, Hæ tibi erunt artes, etc.* So likewise we see that Anytus, the accuser of Socrates, laid it as an article of charge and accusation against him, that he did, with the variety and power of his discourses and disputations, withdraw young

men from due reverence to the laws and customs of their country; and that he did profess a dangerous and pernicious science, which was, to make the worse matter seem the better, and to suppress truth by force of eloquence and speech.

Arms and letters flourish together.

But these, and the like imputations, have rather a countenance of gravity, than any ground of justice: for experience doth warrant, that both in persons and in times, there hath been a meeting and concurrence in learning and arms, flourishing and excelling in the same men, and the same ages. For, as for men, there cannot be a better, nor the like instance, as of that pair, Alexander the Great and Julius Cæsar the dictator; whereof the one was Aristotle's scholar in philosophy, and the other was Cicero's rival in eloquence: or if any man had rather call for scholars that were great generals, than generals that were great scholars, let him take Epaminondas the Theban, or Xenophon the Athenian; whereof the one was the first that abated the power of Sparta, and the other was the first that made way to the overthrow of the monarchy of Persia. And this concurrence is yet more visible

in times than in persons, by how much an age is a greater object than a man. For both in Ægypt, Assyria, Persia, Græcia, and Rome, the same times that are most renowned for arms, are likewise most admired for learning; so that the greatest authors and philosophers, and the greatest captains and governors, have lived in the same ages. Neither can it otherwise be: for as, in man, the ripeness of strength of the body and mind cometh much about an age, save that the strength of the body cometh somewhat the more early; so in states, arms and learning, whereof the one correspondeth to the body, the other to the soul of man, have a concurrence or near sequence in times.

Learning equally useful in Government as in all other arts.

And for matter of policy and government, that learning should rather hurt, than enable thereunto, is a thing very improbable: we see it is accounted an error to commit a natural body to empiric physicians, which commonly have a few pleasing receipts, whereupon they are confident and adventurous, but know neither the causes of diseases, nor the complexions of patients, nor peril of accidents, nor the true method of cures: we see

it is a like error to rely upon advocates or lawyers which are only men of practice, and not grounded in their books, who are many times easily surprised, when matter falleth out besides their experience, to the prejudice of the causes they handle: so, by like reason, it cannot be but a matter of doubtful consequence, if states be managed by empiric statesmen, not well mingled with men grounded in learning. But contrariwise, it is almost without instance contradictory, that ever any government was disastrous that was in the hands of learned governors. For howsoever it hath been ordinary with politic men to extenuate and disable learned men by the names of pedants; yet in the records of time it appeareth, in many particulars, that the governments of princes in minority (notwithstanding the infinite disadvantage of that kind of state) have nevertheless excelled the government of princes of mature age, even for that reason which they seek to traduce, which is, that by that occasion the state hath been in the hands of pedants: for so was the state of Rome for the first five years, which are so much magnified, during the minority

of Nero, in the hands of Seneca, a pedant: so it was again, for ten years space or more, during the minority of Gordianus the younger, with great applause and contentation in the hands of Misitheus, a pedant: so was it before that, in the minority of Alexander Severus, in like happiness, in hands not much unlike, by reason of the rule of the women, who were aided by the teachers and preceptors. Nay, let a man look into the government of the bishops of Rome, as by name, into the government of Pius Quintus, and Sextus Quintus, in our times, who were both at their entrance esteemed but as pedantical friers, and he shall find that such popes do greater things, and proceed upon truer principles of state, than those which have ascended to the papacy from an education and breeding in affairs of state and courts of princes; for although men bred in learning are perhaps to seek in point of convenience, and accommodating for the present, which the Italians call *ragioni di stato*, whereof the same Pius Quintus could not hear spoken with patience, terming them inventions against religion and the moral vir-

tues; yet on the other side, to recompense that, they are perfect in those same plain grounds of religion, justice, honour, and moral virtue, which if they be well and watchfully pursued, there will be seldom use of those other, no more than of physic in a sound or well-dieted body. Neither can the experience of one man's life furnish examples and precedents for the events of one man's life: for as it happeneth sometimes that the grandchild, or other descendent, resembleth the ancestor more than the son; so many times occurrences of present times may sort better with ancient examples, than with those of the latter or immediate times: and lastly, the wit of one man can no more countervail learning, than one man's means can hold way with a common purse.

Learning affords greater strength of remedy than cause of Infirmity.

And as for those particular seducements, or indispositions of the mind for policy and government, which learning is pretended to insinuate; if it be granted that any such thing be, it must be remembered withal, that learning ministreth in every of them greater strength of medicine or remedy, than it offereth cause of indisposition or infirmity; for

if, by a secret operation, it makes men perplexed and irresolute, on the other side, by plain precept, it teacheth them when and upon what ground to resolve; yea, and how to carry things in suspense without prejudice, till they resolve; if it makes men positive and regular, it teacheth them what things are in their nature demonstrative, and what are conjectural; and as well the use of distinctions and exceptions, as the latitude of principles and rules. If it misleads by disproportion, or dissimilitude of examples, it teacheth men the force of circumstances, the errors of comparisons, and all the cautions of application; so that in all these it doth rectify more effectually than it can pervert. And these medicines it conveyeth into mens minds much more forcibly by the quickness and penetration of examples. For let a man look into the errors of Clement the seventh, so lively described by Guicciardine, who served under him, or into the errors of Cicero, painted out by his own pencil in his epistles to Atticus, and he will fly apace from being irresolute. Let him look into the errors of Phocion, and he will beware how he

be obstinate or inflexible. Let him but read the fable of Ixion, and it will hold him from being vaporous or imaginative. Let him look into the errors of Cato the second, and he will never be one of the Antipodes, to tread opposite to the present world.

Learning does not induce slothfulness.

And for the conceit, that learning should dispose men to leisure and privateness, and make men slothful; it were a strange thing if that, which accustometh the mind to a perpetual motion and agitation, should induce slothfulness; whereas contrariwise it may be truly affirmed, that no kind of men love business for itself, but those that are learned; for other persons love it for profit, as an hireling, that loves the work for the wages; or for honour, as because it beareth them up in the eyes of men, and refresheth their reputation, which otherwise would wear; or because it putteth them in mind of their fortune, and giveth them occasion to pleasure and displeasure; or because it exerciseth some faculty wherein they take pride, and so entertaineth them in good humour and pleasing conceits towards themselves; or because it advanceth any other their ends. So

that, as it is said of untrue valours, that some mens valours are in the eyes of them that look on; so such mens industries are in the eyes of others, or at least in regard of their own designments: only learned men love business, as an action according to nature, as agreeable to health of mind, as exercise is to health of body, taking pleasure in the action itself, and not in the purchase: so that of all men they are the most indefatigable, if it be towards any business which can hold or detain their mind.

And if any man be laborious in reading and study, and yet idle in business and action, it groweth from some weakness of body, or softness of spirit; such as Seneca speaketh of: *Quidam tam sunt umbratiles, ut putent in turbido esse quicquid in luce est;* and not of learning: well may it be, that such a point of a man's nature may make him give himself to learning, but it is not learning that breedeth any such point in his nature.

All men have leisure for some learning.

And that learning should take up too much time or leisure: I answer; the most active or busy man that hath been or can be, hath, no question, many vacant times of leisure,

while he expecteth the tides and returns of business (except he be either tedious and of no dispatch, or lightly and unworthily ambitious to meddle in things that may be better done by others:) and then the question is but, how those spaces and times of leisure shall be filled and spent; whether in pleasures or in studies; as was well answered by Demosthenes to his adversary Æschines, that was a man given to pleasure, and told him, that his orations did smell of the lamp: "In-" deed," said Demosthenes, "there is a great " difference between the things that you and " I do by lamp-light." So as no man need doubt that learning will expulse business; but rather it will keep and defend the possession of the mind against idleness and pleasure, which otherwise at unawares may enter, to the prejudice of both.

Learning does not favor sedition.

Again, for that other conceit, that learning should undermine the reverence of laws and government, it is assuredly a mere depravation and calumny, without any shadow of truth. For to say, that a blind custom of obedience should be a surer obligation than duty taught and understood; it is to affirm,

that a blind man may tread surer by a guide than a seeing man can by a light. And it is without all controversy, that learning doth make the minds of men gentle, generous, amiable and pliant to government; whereas ignorance makes them churlish, thwarting, and mutinous: and the evidence of time doth clear this assertion, considering that the most barbarous, rude, and unlearned times have been most subject to tumults, seditions, and changes.

Conjunction of power with learning.

And as to the judgment of Cato the Censor, he was well punished for his blasphemy against learning, in the same kind wherein he offended; for when he was past threescore years old, he was taken with an extreme desire to go to school again, and to learn the Greek tongue, to the end to peruse the Greek authors; which doth well demonstrate, that his former censure of the Grecian learning was rather an affected gravity, than according to the inward sense of his own opinion. And as for Virgil's verses, though it pleased him to brave the world in taking to the Romans the art of empire, and leaving to others the arts of subjects; yet so much

is manifest, that the Romans never ascended to that height of empire, till the time they had ascended to the height of other arts. For in the time of the two first Cæsars, which had the art of government in greatest perfection, there lived the best poet, Virgilius Maro; the best historiographer, Titus Livius; the best antiquary, Marcus Varro; and the best, or second orator, Marcus Cicero, that to the memory of man are known. As for the accusation of Socrates, the time must be remembered when it was prosecuted; which was under the thirty tyrants, the most base, bloody, and envious persons that have governed; which revolution of state was no sooner over, but Socrates, whom they had made a person criminal, was made a person heroical, and his memory accumulate with honours divine and human; and those discourses of his, which were then termed corrupting of manners, were after acknowledged for sovereign medicines of the mind and manners, and so have been received ever since till this day. Let this therefore serve for answer to politicians, which, in their humorous severity, or in their feigned gravity, have pre-

sumed to throw imputations upon learning; which redargution, nevertheless, (save that we know not whether our labours may extend to other ages) were not needful for the present, in regard of the love and reverence towards learning, which the example and countenance of two so learned princes, queen Elizabeth, and your majesty, being as Castor and Pollux, *lucida sidera*, stars of excellent light and most benign influence, hath wrought in all men of place and authority in our nation.

3. Objections to learning from learned men.

Now therefore we come to that third sort of discredit, or diminution of credit, that groweth unto learning from learned men themselves, which commonly cleaveth fastest: it is either from their fortune, or from their manners, or from the nature of their studies. For the first, it is not in their power; and the second is accidental; the third only is proper to be handled: but because we are not in hand with true measure, but with popular estimation and conceit, it is not amiss to speak somewhat of the two former. The derogations therefore, which grow to learning from the fortune or condition of

learned men, are either in respect of scarcity of means, or in respect of privateness of life, and meanness of employments.

Poverty of learned men.

Concerning want, and that it is the case of learned men usually to begin with little, and not to grow rich so fast as other men, by reason they convert not their labours chiefly to lucre and increase: It were good to leave the common place in commendation of poverty to some frier to handle, to whom much was attributed by Machiavel in this point; when he said, "That the kingdom of the "clergy had been long before at an end, "if the reputation and reverence towards "the poverty of friers had not borne out "the scandal of the superfluities and ex-"cesses of bishops and prelates." So a man might say, that the felicity and delicacy of princes and great persons had long since turned to rudeness and barbarism, if the poverty of learning had not kept up civility and honour of life: but, without any such advantages, it is worthy the observation, what a reverend and honoured thing poverty of fortune was, for some ages, in the Roman state, which nevertheless was a

state without paradoxes: for we see what Titus Livius saith in his introduction: *Cæterum aut me amor negotii suscepti fallit, aut nulla unquàm respublica nec major, nec sanctior, nec bonis exemplis ditior fuit; nec in quam tam seræ avaritia luxuriaque immigraverint; nec ubi tantus ac tam diu paupertati ac parsimoniæ honos fuerit.* We see likewise, after that the state of Rome was not itself, but did degenerate, how that person, that took upon him to be counsellor to Julius Cæsar after his victory, where to begin his restoration of the state, maketh it of all points the most summary to take away the estimation of wealth: *Verum hæc, et omnia mala pariter cum honore pecuniæ desinent, si neque magistratus, neque alia vulgo cupienda, venalia erunt.* To conclude this point, as it was truly said, that *rubor est virtutis color,* though sometimes it comes from vice; so it may be fitly said that *paupertas est virtutis fortuna;* though sometimes it may proceed from misgovernment and accident. Surely Solomon hath pronounced it both in censure, *Qui festinat ad divitias non erit insons;* and in precept; *Buy the truth, and sell it not;* and so of wis-

dom and knowledge; judging that means were to be spent upon learning, and not learning to be applied to means. And as for the privateness, or obscureness (as it may be in vulgar estimation accounted) of life of contemplative men; it is a theme so common, to extol a private life not taxed with sensuality and sloth, in comparison and to the disadvantage of a civil life, for safety, liberty, pleasure, and dignity, or at least freedom from indignity, as no man handleth it, but handleth it well: such a consonancy it hath to mens conceits in the expressing, and to mens consents in the allowing. This only I will add, that learned men forgotten in states, and not living in the eyes of men, are like the images of Cassius and Brutus in the funeral of Junia; of which not being represented, as many others were, Tacitus saith, *Eo ipso præfulgebant, quod non visebantur.*

Meanness of their employment.

And for meanness of employment, that which is most traduced to contempt is that the government of youth is commonly allotted to them; which age, because it is the age of least authority, it is transferred

to the disesteeming of those employments wherein youth is conversant, and which are conversant about youth. But how unjust this traducement is (if you will reduce things from popularity of opinion to measure of reason) may appear in that, we see men are more curious what they put into a new vessel, than into a vessel seasoned; and what mould they lay about a young plant, than about a plant corroborate; so as the weakest terms and times of all things use to have the best applications and helps. And will you hearken to the Hebrew Rabbins? *Your young men shall see visions, and your old men shall dream dreams:* say they, youth is the worthier age, for that visions are nearer apparitions of God than dreams. And let it be noted, that howsoever the condition of life of pedants hath been scorned upon theatres, as the ape of tyranny; and that the modern looseness or negligence hath taken no due regard to the choice of school-masters and tutors; yet the ancient wisdom of the best times did always make a just complaint, that states were too busy with their laws, and too negligent in point of education: which ex-

cellent part of ancient discipline hath been in some sort revived of late times by the colleges of the Jesuits; of whom, although in regard of their superstition I may say, *quo meliores, eo deteriores;* yet in regard of this, and some other points concerning human learning and moral matters, I may say, as Agesilaus said to his enemy Pharnabasus, *Talis quum sis, utinam noster esses.* And thus much touching the discredits drawn from the fortunes of learned men.

Manners of learned men.

As touching the manners of learned men, it is a thing personal and individual: and no doubt there be amongst them, as in other professions, of all temperatures: but yet so as it is not without truth, which is said, that *abeunt studia in mores,* studies have an influence and operation upon the manners of those that are conversant in them.

But upon an attentive and indifferent review, I for my part cannot find any disgrace to learning can proceed from the manners of learned men not inherent to them as they are learned; except it be a fault (which was the supposed fault of Demosthenes, Cicero, Cato the second, Seneca, and many

more) that, because the times they read of are commonly better than the times they live in, and the duties taught better than the duties practised, they contend sometimes too far to bring things to perfection, and to reduce the corruption of manners to honesty of precepts, or examples of too great height. And yet hereof they have caveats enough in their own walks. For Solon, when he was asked whether he had given his citizens the best laws, answered wisely, "Yea, of such as they would receive:" and Plato, finding that his own heart could not agree with the corrupt manners of his country, refused to bear place or office; saying, "That a man's "country was to be used as his parents were, "that is, with humble persuasions, and not "with contestations." And Cæsar's counsellor put in the same caveat, *Non ad vetera instituta revocans quæ jampridem corruptis moribus ludibrio sunt:* and Cicero noteth this error directly in Cato the second, when he writes to his friend Atticus; *Cato optime sentit, sed nocet interdum reipublicæ; loquitur enim tanquam in republica Platonis, non tanquam in fæce Romuli.* And the same Cicero

doth excuse and expugn the philosophers for going too far, and being too exact in their prescripts, when he saith, *Isti ipsi præceptores virtutis et magistri videntur fines officiorum paulo longius quam natura vellet protulisse, ut cum ad ultimum animo contendissemus, ibi tamen, ubi oportet, consisteremus:* and yet himself might have said, *Monitis sum minor ipse meis;* for it was his own fault, though not in so extreme a degree.

Disinterested counsels of learned men.

Another fault likewise much of this kind hath been incident to learned men; which is, that they have esteemed the preservation, good and honour of their countries or masters before their own fortunes or safeties. For so saith Demosthenes unto the Athenians: "If it please you to note it, my counsels "unto you are not such whereby I should "grow great amongst you, and you become "little amongst the Grecians: but they be "of that nature, as they are sometimes not "good for me to give, but are always good "for you to follow." And so Seneca, after he had consecrated that *Quinquennium Neronis* to the eternal glory of learned governors, held on his honest and loyal course of good

and free counsel, after his master grew extremely corrupt in his government. Neither can this point otherwise be; for learning endueth mens minds with a true sense of the frailty of their persons, the casualty of their fortunes, and the dignity of their soul and vocation: so that it is impossible for them to esteem that any greatness of their own fortune can be a true or worthy end of their being and ordainment; and therefore are desirous to give their account to God, and so likewise to their masters under God (as kings and the states that they serve) in these words; *Ecce tibi lucrefeci*, and not *Ecce mihi lucrefeci*: whereas the corrupter sort of mere politicians, that have not their thoughts established by learning in the love and apprehension of duty, nor ever look abroad into universality, do refer all things to themselves, and thrust themselves into the centre of the world, as if all lines should meet in them and their fortunes; never caring, in all tempests, what becomes of the ship of state, so they may save themselves in the cockboat of their own fortune: whereas men that feel the weight of duty, and know the limits of self-love, use to make good their places and duties, though with

peril; and if they stand in seditious and violent alterations, it is rather the reverence which many times both adverse parties do give to honesty, than any versatile advantage of their own carriage. But for this point of tender sense, and fast obligation of duty, which learning doth endue the mind withal, howsoever fortune may tax it, and many in the depth of their corrupt principles may despise it, yet it will receive an open allowance, and therefore needs the less disproof or excusation.

Learned men not sycophantic.

Another fault incident commonly to learned men, which may be more probably defended than truly denied, is that they fail sometimes in applying themselves to particular persons: which want of exact application ariseth from two causes; the one, because the largeness of their mind can hardly confine itself to dwell in the exquisite observation or examination of the nature and customs of one person: for it is a speech for a lover, and not for a wise man: *Satis magnum alter alteri theatrum sumus.* Nevertheless I shall yield, that he that cannot contract the sight of his mind, as well as disperse and dilate it, wanteth a great faculty. But there

is a second cause, which is no inability, but a rejection upon choice and judgment; for the honest and just bounds of observation, by one person upon another, extend no farther but to understand him sufficiently, whereby not to give him offence, or whereby to be able to give him faithful counsel, or whereby to stand upon reasonable guard and caution in respect of a man's self: but to be speculative into another man, to the end to know how to work him or wind him or govern him, proceedeth from a heart that is double and cloven, and not entire and ingenuous; which as in friendship it is want of integrity, so towards princes or superiors is want of duty. For the custom of the Levant, which is, that subjects do forbear to gaze or fix their eyes upon princes, is in the outward ceremony barbarous, but the moral is good: for men ought not by cunning and bent observations to pierce and penetrate into the hearts of kings, which the scripture hath declared to be inscrutable.

Learned men fail in small points of conduct.

There is yet another fault (with which I will conclude this part) which is often noted in learned men, that they do many times fail

to observe decency and discretion in their behaviour and carriage, and commit errors in small and ordinary points of action, so as the vulgar sort of capacities do make a judgment of them in greater matters by that which they find wanting in them in smaller. But this consequence doth often deceive men, for which I do refer them over to that which was said by Themistocles, arrogantly and uncivilly being applied to himself out of his own mouth; but, being applied to the general state of this question, pertinently and justly; when, being invited to touch a lute, he said, "he could not fiddle, but he could "make a small town a great state." So, no doubt, many may be well seen in the passages of government and policy, which are to seek in little and punctual occasions. I refer them also to that which Plato said of his master Socrates, whom he compared to the gallypots of apothecaries, which on the outside had apes and owls and antiques, but contained within sovereign and precious liquors and confections; acknowledging that to an external report he was not without superficial levities and deformities, but was inwardly re-

plenished with excellent virtues and powers. And so much touching the point of manners of learned men.

Morigeration of the learned to the great, how far allowable.

But in the mean time I have no purpose to give allowance to some conditions and courses base and unworthy, wherein divers professors of learning have wronged themselves, and gone too far; such as were those trencher philosopers, which in the later age of the Roman state were usually in the houses of great persons, being little better than solemn parasites; of which kind, Lucian maketh a merry description of the philosopher that the great lady took to ride with her in her coach, and would needs have him carry her little dog, which he doing officiously and yet uncomely, the page scoffed, and said, "That "he doubted, the philosopher of a Stoic "would turn to be Cynic." But above all the rest, the gross and palpable flattery, whereunto many not unlearned have abased and abused their wits and pens, turning, as Du Bartas saith, Hecuba into Helena, and Faustina into Lucretia, hath most diminished the price and estimation of learning. Neither is the modern dedication of books and

writings, as to patrons, to be commended: for that books, such as are worthy the name of books, ought to have no patrons but truth and reason. And the ancient custom was, to dedicate them only to private and equal friends, or to intitle the books with their names; or if to kings and great persons, it was to some such as the argument of the book was fit and proper for: but these and the like courses may deserve rather reprehension than defence.

Not that I can tax or condemn the morigeration or application of learned men to men in fortune. For the answer was good that Diogenes made to one that asked him in mockery, "How it came to pass that philo-"sophers were the followers of rich men, "and not rich men of philosophers?" He answered soberly, and yet sharply, "Be-"cause the one sort knew what they had "need of, and the other did not." And of the like nature was the answer which Aristippus made, when having a petition to Dionysius, and no ear given to him, he fell down at his feet; whereupon Dionysius staid, and gave him the hearing, and granted it;

and afterward some person, tender on the behalf of philosophy, reproved Aristippus, that he would offer the profession of philosophy such an indignity, as for a private suit to fall at a tyrant's feet: but he answered, "It was not his fault, but it was the fault of "Dionysius that he had his ears in his feet." Neither was it accounted weakness, but discretion in him that would not dispute his best with Adrianus Cæsar; excusing himself, "That it was reason to yield to him "that commanded thirty legions." These and the like applications, and stooping to points of necessity and convenience, cannot be disallowed: for though they may have some outward baseness, yet in a judgment truly made, they are to be accounted submissions to the occasion, and not to the person.

THREE DISTEMPERS OF LEARNING.

Now I proceed to those errors and vanities which have intervened amongst the studies themselves of the learned, which is that which is principal and proper to the present argument; wherein my purpose is not to

make a justification of the errors, but, by a censure and separation of the errors, to make a justification of that which is good and sound, and to deliver that from the aspersion of the other. For we see, that it is the manner of men to scandalize and deprave that which retaineth the state and virtue, by taking advantage upon that which is corrupt and degenerate: as the heathens in the primitive church used to blemish and taint the Christians with the faults and corruptions of hereticks. But nevertheless I have no meaning at this time to make any exact animadversion of the errors and impediments in matters of learning, which are more secret and remote from vulgar opinion, but only to speak unto such as do fall under or near unto a popular observation.

There be therefore chiefly three vanities in studies, whereby learning hath been most traduced. For those things we do esteem vain, which are either false or frivolous, those which either have no truth, or no use: and those persons we esteem vain, which are either credulous or curious; and curiosity is either in matter or words: so that in reason, as well

as in experience, there fall out to be these three distempers, as I may term them, of learning; the first, fantastical learning; the second, contentious learning; and the last, delicate learning; vain imaginations, vain altercations, and vain affectation; and with the last I will begin.

1. Of delicate learning, or vain affectations.

Martin Luther, conducted no doubt by an higher providence, but in discourse of reason, finding what a province he had undertaken against the bishop of Rome and the degenerate traditions of the church, and finding his own solitude, being no ways aided by the opinions of his own time, was enforced to awake all antiquity, and to call former times to his succour, to make a party against the present time. So that the ancient authors, both in divinity and in humanity, which had long time slept in libraries, began generally to be read and revolved. This by consequence did draw on a necessity of a more exquisite travel in the languages original, wherein those authors did write, for the better understanding of those authors, and the better advantage of pressing and applying their words. And thereof grew again a delight

in their manner of style and phrase, and an admiration of that kind of writing; which was much furthered and precipitated by the enmity and opposition that the propounders of those primitive, but seeming new opinions had against the schoolmen; who were generally of the contrary part, and whose writings were altogether in a differing stile and form, taking liberty to coin and frame new terms of art to express their own sense, and to avoid circuit of speech, without regard to the pureness, pleasantness, and, as I may call it, lawfulness of the phrase or word.

The study of eloquence promoted by four causes.

And again, because the great labour then was with the people, (of whom the Pharisees were wont to say, *Execrabilis ista turba, quæ non novit legem,)* for the winning and persuading of them, there grew of necessity in chief price and request eloquence and variety of discourse, as the fittest and forciblest access into the capacity of the vulgar sort: so that these four causes concurring, the admiration of ancient authors, the hate of the schoolmen, the exact study of languages, and the efficacy of preaching, did bring in an affected* study of eloquence and *copia* of speech,

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which then began to flourish. This grew speedily to an excess; for men began to hunt more after words than matter; and more after the choiceness of the phrase, and the round and clean composition of the sentence, and the sweet falling of the clauses, and the varying and illustration of their works with tropes and figures, than after the weight of matter, worth of subject, soundness of argument, life of invention, or depth of judgment. Then grew the flowing and watry vein of Osorius, the Portugal bishop, to be in price. Then did Sturmius spend such infinite and curious pains upon Cicero the orator, and Hermogenes the rhetorician, besides his own books of periods, and imitation, and the like. Then did Car of Cambridge, and Ascham, with their lectures and writings, almost deify Cicero and Demosthenes, and allure all young men, that were studious, unto that delicate and polished kind of learning. Then did Erasmus take occasion to make the scoffing echo; *Decem annos consumpsi in legendo Cicerone:* and the echo answered in Greek, Ὄνε, *Asine.* Then grew the learning of the schoolmen to be utterly de-

spised as barbarous. In sum, the whole inclination and bent of those times was rather towards *copia* than weight.

Here therefore is the first distemper of learning, when men study words, and not matter: whereof though I have represented an example of late times, yet it hath been, and will be *secundum majus et minus* in all time. And how is it possible but this should have an operation to discredit learning, even with vulgar capacities, when they see learned men's works like the first letter of a patent or limned book; which though it hath large flourishes, yet it is but a letter? It seems to me that Pygmalion's frenzy is a good emblem or portraiture of this vanity: for words are but the images of matter; and except they have life of reason and invention, to fall in love with them is all one as to fall in love with a picture.

How far eloquence may be useful.

But yet, notwithstanding, it is a thing not hastily to be condemned, to clothe and adorn the obscurity, even of philosophy itself, with sensible and plausible elocution; for hereof we have great examples in Xenophon, Cicero, Seneca, Plutarch, and of Plato also in some

degree; and hereof likewise there is great use: for surely, to the severe inquisition of truth, and the deep progress into philosophy, it is some hindrance; because it is too early satisfactory to the mind of man, and quencheth the desire of farther search, before we come to a just period: but then if a man be to have any use of such knowledge in civil occasions, of conference, counsel, persuasion, discourse, or the like; then shall he find it prepared to his hands in those authors which write in that manner. But the excess of this is so justly contemptible, that as Hercules, when he saw the image of Adonis, Venus's minion, in a temple, said in disdain, *Nil sacri es;* so there is none of Hercules's followers in learning, that is, the more severe and laborious sort of inquirers into truth, but will despise those delicacies and affectations, as indeed capable of no divineness. And thus much of the first disease or distemper of learning.

2. Of contentious learning, or vain altercations.

The second, which followeth, is in nature worse than the former: for as substance of matter is better than beauty of words, so, contrariwise, vain matter is worse than vain

words; wherein it seemeth the reprehension of St. Paul was not only proper for those times, but prophetical for the times following; and not only respective to divinity, but extensive to all knowledge: *Devita profanas vocum novitates, et oppositiones falsi nominis scientiæ.* For he assigneth two marks and badges of suspected and falsified science: the one, the novelty and strangeness of terms; the other, the strictness of positions, which of necessity doth induce oppositions, and so questions and altercations. Surely, like as many substances in nature, which are solid, do putrify and corrupt into worms; so it is the property of good and sound knowledge, to putrify and dissolve into number of subtle, idle, unwholesome, and, as I may term them, vermiculate questions, which have indeed a kind of quickness, and life of spirit, but no soundness of matter, or goodness of quality. This kind of degenerate learning did chiefly reign amongst the schoolmen; who having sharp and strong wits, and abundance of leisure, and small variety of reading, (but their wits being shut up in the cells of a few authors, chiefly Aristotle their dictator, as their

Marks of false science.

persons were shut up in the cells of monasteries and colleges,) and knowing little history, either of nature or time, did out of no great quantity of matter, and infinite agitation of wit, spin out unto us those laborious webs of learning, which are extant in their books. For the wit and mind of man, if it work upon matter, which is the contemplation of the creatures of God, worketh according to the stuff, and is limited thereby: but if it work upon itself, as the spider worketh his web, then it is endless, and brings forth indeed cobwebs of learning, admirable for the fineness of thread and work, but of no substance or profit.

Two kinds of unprofitable subtlety.

The same unprofitable subtilty or curiosity is of two sorts; either in the subject itself that they handle, when it is a fruitless speculation or controversy, whereof there are no small number both in divinity and philosophy; or in the manner or method of handling of a knowledge, which amongst them was this; upon every particular position or assertion to frame objections, and to those objections, solutions; which solutions were for the most part not confutations, but distinctions:

whereas indeed the strength of all sciences is, as the strength of the old man's faggot, in the band. For the harmony of a science, supporting each part the other, is and ought to be the true and brief confutation and suppression of all the smaller sort of objections. But, on the other side, if you take out every axiom, as the sticks of the faggot, one by one, you may quarrel with them, and bend them, and break them at your pleasure: so that as was said of Seneca, *Verborum minutiis rerum frangit pondera:* so a man may truly say of the schoolmen, *Quæstionum minutiis scientiarum frangunt soliditatem.* For were it not better for a man in a fair room to set up one great light, or branching candlestick of lights, than to go about with a small watch candle into every corner? And such is their method, that rests not so much upon evidence of truth proved by arguments, authorities, similitudes, examples, as upon particular confutations and solutions of every scruple, cavillation, and objection; breeding for the most part one question, as fast as it solveth another; even as in the former resemblance, when you carry the light into one corner,

you darken the rest: so that the fable and fiction of *Scylla* seemeth to be a lively image of this kind of philosophy or knowledge; who was transformed into a comely virgin for the upper parts; but then, *Candida succinctam latrantibus inguina monstris:* so the generalities of the schoolmen are for a while good and proportionable; but then, when you descend into their distinctions and decisions, instead of a fruitful womb, for the use and benefit of man's life, they end in monstrous altercations and barking questions. So as it is not possible but this quality of knowledge must fall under popular contempt, the people being apt to contemn truth upon occasion of controversies and altercations, and to think they are all out of their way which never meet: and when they see such digladiation about subtilties, and matters of no use or moment, they easily fall upon that judgment of Dionysius of Syracuse, *Verba ista sunt senum otiosorum.*

Notwithstanding, certain it is that if those schoolmen, to their great thirst of truth and unwearied travel of wit, had joined variety and universality of reading and contemplation, they had proved excellent lights,

to the great advancement of all learning and knowledge; but as they are, they are great undertakers indeed, and fierce with dark keeping: but as in the inquiry of the divine truth, their pride inclined to leave the oracle of God's word, and to vanish in the mixture of their own inventions; so in the inquisition of nature, they ever left the oracle of God's works, and adored the deceiving and deformed images, which the unequal mirror of their own minds, or a few received authors or principles, did represent unto them. And thus much for the second disease of learning.

3. Of fantastical learning or vain imaginations.

For the third vice or disease of learning, which concerneth deceit or untruth, it is of all the rest the foulest; as that which doth destroy the essential form of knowledge, which is nothing but a representation of truth; for the truth of being and the truth of knowing are one, differing no more than the direct beam and the beam reflected. This vice therefore brancheth itself into two sorts; delight in deceiving, and aptness to be deceived; imposture and credulity; which, although they appear to be of a diverse na-

ture, the one seeming to proceed of cunning, and the other of simplicity, yet certainly they do for the most part concur: for as the verse noteth,

Percontatorem fugito, nam garrulus idem est:

an inquisitive man is a prattler: so upon the like reason, a credulous man is a deceiver: as we see it in fame, that he that will easily believe rumours, will as easily augment rumours, and add somewhat to them of his own; which Tacitus wisely noteth, when he saith, *Fingunt simul creduntque:* so great an affinity hath fiction and belief.

Two kinds of credulity.

This facility of credit, and accepting or admitting things weakly authorized or warranted, is of two kinds, according to the subject: for it is either a belief of history, as the lawyers speak, matter of fact; or else of matter of art and opinion. As to the former, we see the experience and inconvenience of this error in ecclesiastical history; which hath too easily received and registered reports and narrations of miracles wrought by martyrs, hermits, or monks of the desart, and other holy men, and their relicks, shrines, chapels, and images: which though they had a pas-

sage for time, by the ignorance of the people, the superstitious simplicity of some, and the politic toleration of others holding them but as divine poesies; yet after a period of time, when the mist began to clear up, they grew to be esteemed but as old wives' fables, impostures of the clergy, illusions of spirits, and badges of antichrist, to the great scandal and detriment of religion.

So in natural history, we see there hath not been that choice and judgment used as ought to have been; as may appear in the writings of Plinius, Cardanus, Albertus, and divers of the Arabians, being fraught with much fabulous matter, a great part not only untried, but notoriously untrue, to the great derogation of the credit of natural philosophy with the grave and sober kind of wits: wherein the wisdom and integrity of Aristotle is worthy to be observed, that, having made so diligent and exquisite a history of living creatures, hath mingled it sparingly with any vain or feigned matter: and yet, on the other side, hath cast all prodigious narrations, which he thought worthy the recording, into one book: excellently discern-

Diligence and caution of Aristotle.

ing that matter of manifest truth, (such, whereupon observation and rule was to be built,) was not to be mingled or weakened with matter of doubtful credit; and yet again, that rarities and reports that seem incredible are not to be suppressed or denied to the memory of men.

Undue credit given to arts.

And as for the facility of credit which is yielded to arts and opinions, it is likewise of two kinds; either when too much belief is attributed to the arts themselves, or to certain authors in any art. The sciences themselves, which have had better intelligence and confederacy with the imagination of man than with his reason, are three in number; astrology, natural magic, and alchemy; of which sciences, nevertheless, the ends or pretences are noble. For astrology pretendeth to discover that correspondence or concatenation, which is between the superior globe and the inferior: natural magic pretendeth to call and reduce natural philosophy from variety of speculations to the magnitude of works: and alchemy pretendeth to make separation of all the unlike parts of bodies, which in mixtures of nature

are incorporate. But the derivations and prosecutions to these ends, both in the theories and in the practices, are full of error and vanity; which the great professors themselves have sought to veil over and conceal by enigmatical writings, and referring themselves to auricular traditions and such other devices, to save the credit of impostors: and yet surely to alchemy this right is due, that it may be compared to the husbandman whereof Æsop makes the fable; that, when he died, told his sons, that he had left unto them gold buried under ground in his vineyard; and they digged over all the ground, and gold they found none; but by reason of their stirring and digging the mould about the roots of their vines, they had a great vintage the year following: so assuredly the search and stir to make gold hath brought to light a great number of good and fruitful inventions and experiments, as well for the disclosing of nature, as for the use of man's life.

Undue credit given to Authors.

And as to the overmuch credit that hath been given unto authors in sciences, in making them dictators, that their words should

stand; and not consuls, to give advice; the damage is infinite that sciences have received thereby, as the principal cause that hath kept them low, at a stay, without growth or advancement. For hence it hath come, that in arts mechanical the first deviser comes shortest, and time addeth and perfecteth: but in sciences the first author goeth farthest, and time loseth and corrupteth. So we see, artillery, sailing, printing, and the like, were grossly managed at the first, and by time accommodated and refined: but contrariwise, the philosophies and sciences of Aristotle, Plato, Democritus, Hippocrates, Euclides, Archimedes, of most vigour at the first, are by time degenerate and imbased; whereof the reason is no other, but that in the former many wits and industries have contributed in one; and in the latter many wits and industries have been spent about the wit of some one, whom many times they have rather depraved than illustrated. For as water will not ascend higher than the level of the first spring-head from whence it descendeth, so knowledge derived from Aristotle, and exempted from liberty

of examination, will not rise again higher than the knowledge of Aristotle. And therefore although the position be good, *Oportet discentem credere;* yet it must be coupled with this, *Oportet edoctum judicare:* for disciples do owe unto masters only a temporary belief, and a suspension of their own judgment till they be fully instructed, and not an absolute resignation, or perpetual captivity: and therefore, to conclude this point, I will say no more, but so let great authors have their due, as time, which is the author of authors, be not deprived of his due, which is, farther and farther to discover truth.

VARIOUS ERRORS IN THE PURSUIT OF LEARNING.

Thus I have gone over these three diseases of learning; besides the which, there are some other rather peccant humours than formed diseases; which nevertheless are not so secret and intrinsic, but that they fall under a popular observation and traducement, and therefore are not to be passed over.

The first of these is the extreme affecting of two extremities; the one antiquity, the other novelty: wherein it seemeth the children of time do take after the nature and malice of the father. For as he devoureth his children, so one of them seeketh to devour and suppress the other; while antiquity envieth there should be new additions, and novelty cannot be content to add, but it must deface: surely, the advice of the prophet is the true direction in this matter, *State super vias antiquas, et videte quænam sit via recta et bona, et ambulate in ea.* Antiquity deserveth that reverence, that men should make a stand thereupon, and discover what is the best way; but when the discovery is well taken, then to make progression. And to speak truly, *Antiquitas sæculi juventus mundi:* These times are the ancient times, when the world is ancient, and not those which we account ancient *ordine retrogrado,* by a computation backward from ourselves.

1. Affectation of antiquity; or of novelty.

Another error, induced by the former, is a distrust that any thing should be now to be found out, which the world should have missed and passed over so long time; as if the

2. Despair of new truths.

same objection were to be made to time, that Lucian maketh to Jupiter and other the heathen gods; of which he wondereth that they begot so many children in old time, and begot none in his time; and asketh whether they were become septuagenary, or whether the law Papia, made against old men's marriages, had restrained them. So it seemeth men doubt lest time is become past children and generation; wherein, contrariwise, we see commonly the levity and inconstancy of men's judgments, which till a matter be done, wonder that it can be done; and, as soon as it is done, wonder again that it was no sooner done: as we see in the expedition of Alexander into Asia, which at first was prejudged as a vast and impossible enterprise: and yet afterwards it pleaseth Livy to make no more of it than this; *Nil aliud quàm bene ausus est vana contemnere:* and the same happened to Columbus in the western navigation. But in intellectual matters it is much more common; as may be seen in most of the propositions of Euclid: which till they be demonstrated, they seem strange to our assent; but being demonstrated, our mind ac-

cepteth of them by a kind of relation, as the lawyers speak, as if we had known them before.

Another error, that hath also some affinity with the former, is a conceit that of former opinions or sects, after variety and examination, the best hath still prevailed, and suppressed the rest: so as, if a man should begin the labour of a new search, he were but like to light upon somewhat formerly rejected, and by rejection brought into oblivion: as if the multitude, or the wisest, for the multitude's sake, were not ready to give passage rather to that which is popular and superficial, than to that which is substantial and profound: for the truth is, that time seemeth to be of the nature of a river or stream, which carrieth down to us that which is light and blown up, and sinketh and drowneth that which is weighty and solid. 3. Reliance on received opinions.

Another error, of a diverse nature from all the former, is the over early and peremptory reduction of knowledge into arts and methods; from which time commonly sciences receive small or no augmentation. But as young men, when they knit and shape per- 4. Reducing knowledge into methods.

fectly, do seldom grow to a farther stature; so knowledge, while it is in aphorisms and observations, it is in growth; but when it once is comprehended in exact methods, it may perchance be farther polished and illustrated, and accommodated for use and practice; but it increaseth no more in bulk and substance.

5. Neglect of universal philosophy.

Another error which doth succeed that which we last mentioned, is, that after the distribution of particular arts and sciences, men have abandoned universality, or *philosophia prima;* which cannot but cease and stop all progression. For no perfect discovery can be made upon a flat or a level: neither is it possible to discover the more remote and deeper parts of any science, if you stand but upon the level of the same science, and ascend not to a higher science.

6. Mode of the Intellectualists.

Another error hath proceeded from too great a reverence, and a kind of adoration of the mind and understanding of man; by means whereof, men have withdrawn themselves too much from the contemplation of nature, and the observations of experience, and have tumbled up and down in their own reason and conceits. Upon these intellec-

tualists; which are, notwithstanding, commonly taken for the most sublime and divine philosophers, Heraclitus gave a just censure, saying, "Men sought truth in their own "little worlds, and not in the great and com- "mon world;" for they disdain to spell, and so by degrees to read in the volume of God's works; and contrariwise, by continual meditation and agitation of wit, do urge and as it were invocate their own spirits to divine, and give oracles unto them, whereby they are deservedly deluded.

7. Intermixture of favourite conceits.

Another error that hath some connexion with this latter, is that men have used to infect their meditations, opinions, and doctrines, with some conceits which they have most admired, or some sciences which they have most applied; and given all things else a tincture according to them, utterly untrue and improper. So hath Plato intermingled his philosophy with theology, and Aristotle with logic; and the second school of Plato, Proclus and the rest, with the mathematics. For these were the arts which had a kind of primogeniture with them severally. So have the alchemists made a philosophy out of a

few experiments of the furnace; and Gilbertus, our countryman, hath made a philosophy out of the observations of a loadstone. So Cicero, when, reciting the several opinions of the nature of the soul, he found a musician that held the soul was but a harmony, saith pleasantly, *Hic ab arte sua non recessit, etc.* But of these conceits Aristotle speaketh seriously and wisely, when he saith, *Qui respiciunt ad pauca de facili pronunciant.*

8. Dogmatism.

Another error is an impatience of doubt, and haste to assertion without due and mature suspension of judgment. For the two ways of contemplation are not unlike the two ways of action, commonly spoken of by the ancients; the one plain and smooth in the beginning, and in the end impassable; the other rough and troublesome in the entrance, but after a while fair and even: so it is contemplation; if a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties.

9. Peremptoriness.

Another error is in the manner of the tradition and delivery of knowledge, which is

for the most part magisterial and peremptory, and not ingenuous and faithful; in a sort as may be soonest believed, and not easiliest examined. It is true, that in compendious treatises for practice, that form is not to be disallowed. But in the true handling of knowledge, men ought not to fall either, on the one side, into the vein of Velleius the Epicurean: *Nil tam metuens, quàm ne dubitare aliqua de re videretur:* nor, on the other side, into Socrates his ironical doubting of all things; but to propound things sincerely, with more or less asseveration, as they stand in a man's own judgment proved more or less.

10. Ill-judged labours.

Other errors there are in the scope that men propound to themselves, whereunto they bend their endeavours: for whereas the more constant and devote kind of professors of any science ought to propound to themselves to make some additions to their science, they convert their labours to aspire to certain second prizes: as to be a profound interpreter or commentator; to be a sharp champion or defender; to be a methodical compounder or abridger; and so the patri-

mony of knowledge cometh to be sometimes improved, but seldom augmented.

11. Mistake of the ultimate purpose.

But the greatest error of all the rest, is the mistaking or misplacing of the last or farthest end of knowledge: for men have entered into a desire of learning and knowledge, sometimes upon a natural curiosity, and inquisitive appetite; sometimes to entertain their minds with variety and delight; sometimes for ornament and reputation; and sometimes to enable them to victory of wit and contradiction; and most times for lucre and profession; and seldom sincerely to give a true account of their gift of reason, to the benefit and use of men: as if there were sought in knowledge a couch, whereupon to rest a searching and restless spirit; or a terras, for a wandering and variable mind to walk up and down with a fair prospect; or a tower of state, for a proud mind to raise itself upon; or a fort or commanding ground, for strife and contention; or a shop, for profit or sale; and not a rich storehouse, for the glory of the Creator, and the relief of man's estate. But this is that which will indeed dignify and exalt knowledge, if contempla-

How to pursue knowledge.

tion and action may be more nearly and straitly conjoined and united together than they have been; a conjunction like unto that of the two highest planets, Saturn, the planet of rest and contemplation, and Jupiter, the planet of civil society and action: howbeit, I do not mean, when I speak of use and action, that end before-mentioned of the applying of knowledge to lucre and profession; for I am not ignorant how much that diverteth and interrupteth the prosecution and advancement of knowledge, like unto the golden ball thrown before Atalanta, which while she goeth aside and stoopeth to take up, the race is hindered;

Declinat cursus, aurumque volubile tollit.

Neither is my meaning, as was spoken of Socrates, to call philosophy down from heaven to converse upon the earth; that is, to leave natural philosophy aside, and to apply knowledge only to manners and policy. But as both heaven and earth do conspire and contribute to the use and benefit of man; so the end ought to be, from both philosophies to separate and reject vain speculations, and whatsoever is empty and void,

and to preserve and augment whatsoever is solid and fruitful: that knowledge may not be, as a courtesan, for pleasure and vanity only, or as a bond-woman, to acquire and gain to her master's use; but as a spouse, for generation, fruit, and comfort.

OF THE DIGNITY OF KNOWLEDGE.

Thus have I described and opened, as by a kind of dissection, those peccant humours, the principal of them, which have not only given impediment to the proficience of learning, but have given also occasion to the traducement thereof: wherein if I have been too plain, it must be remembered, *Fidelia vulnera amantis, sed dolosa oscula malignantis.*

This, I think, I have gained, that I ought to be the better believed in that which I shall say pertaining to commendation; because I have proceeded so freely in that which concerneth censure. And yet I have no purpose to enter into a laudative of learning, or to make a hymn to the muses; though I am of opinion that it is long since their

rites were duly celebrated: but my intent is, without varnish or amplification, justly to weigh the dignity of knowledge in the balance with other things, and to take the true value thereof by testimonies and arguments divine and human.

1. *Divine proofs.*

First therefore, let us seek the dignity of knowledge in the archetype or first platform, which is in the attributes and acts of God, as far as they are revealed to man, and may be observed with sobriety; wherein we may not seek it by the name of learning; for all learning is knowledge acquired, and all knowledge in God is original: and therefore we must look for it by another name, that of wisdom or sapience, as the Scriptures call it.

In the attributes and acts of God.

It is so then, that in the work of the creation we see a double emanation of virtue from God; the one referring more properly to power, the other to wisdom: the one expressed in making the subsistence of the matter, and the other in disposing the beauty of the form. This being supposed, it is to

be observed, that, for any thing which appeareth in the history of the creation, the confused mass and matter of heaven and earth was made in a moment; and the order and disposition of that chaos or mass was the work of six days; such a note of difference it pleased God to put upon the works of power, and the works of wisdom: wherewith concurreth, that in the former it is not set down that God said, *Let there be heaven and earth,* as it is set down of the works following; but actually, that God made heaven and earth: the one carrying the stile of a manufacture, and the other of a law, decree, or council.

In the order of spirits.

To proceed to that which is next in order, from God to spirits. We find, as far as credit is to be given to the celestial hierarchy of that supposed Dionysius the senator of Athens, the first place or degree is given to the angels of love, which are termed Seraphim; the second to the angels of light, which are termed Cherubim; and the third, and so following places, to thrones, principalities, and the rest, which are all angels of power and ministry; so as the angels of

knowledge and illumination are placed before the angels of office and domination.

In material forms.

To descend from spirits and intellectual forms to sensible and material forms; we read the first form that was created was light, which hath a relation and correspondence in nature and corporal things to knowledge in spirits and incorporal things.

So in the distribution of days, we see, the day wherein God did rest, and contemplate his own works, was blessed above all the days wherein he did effect and accomplish them.

After the creation was finished, it is set down unto us, that man was placed in the garden to work therein; which work, so appointed to him, could be no other than work of contemplation; that is, when the end of work is but for exercise and experiment, not necessity; for there being then no reluctation of the creature, nor sweat of the brow, man's employment must of consequence have been matter of delight in the experiment, and not matter of labour for the use. Again, the first acts which man performed in paradise consisted of the two summary parts of knowledge; the view of creatures, and

the imposition of names. As for the knowledge which induced the fall, it was, as was touched before, not the natural knowledge of creatures, but the moral knowledge of good and evil; wherein the supposition was, that God's commandments or prohibitions were not the originals of good and evil, but that they had other beginnings, which man aspired to know; to the end to make a total defection from God, and to depend wholly upon himself.

In the primitive occupations of man.

To pass on: in the first event or occurrence after the fall of man, we see, (as the Scriptures have infinite mysteries, not violating at all the truth of the story or letter,) an image of the two estates, the contemplative state and the active state, figured in the two persons of Abel and Cain, and in the two simplest and most primitive trades of life; that of the shepherd, (who, by reason of his leisure, rest in a place, and living in view of heaven, is a lively image of a contemplative life,) and that of the husbandman: where we see again the favour and election of God went to the shepherd, and not to the tiller of the ground.

So in the age before the flood, the holy records, within those few memorials which are there entered and registered, have vouchsafed to mention and honour the name of the inventors and authors of music and works in metal. In the age after the flood, the first great judgment of God upon the ambition of man was the confusion of tongues; whereby the open trade and intercourse of learning and knowledge was chiefly imbarred.

In the character of Moses.

To descend to Moses the lawgiver, and God's first pen: he is adorned by the Scriptures with this addition and commendation, that he was *seen in all the learning of the Ægyptians;* which nation, we know, was one of the most ancient schools of the world: for so Plato brings in the Ægyptian priest saying unto Solon: "You Grecians are "ever children; you have no knowledge "of antiquity, nor antiquity of know-"ledge." Take a view of the ceremonial law of Moses; you shall find, besides the prefiguration of Christ, the badge or difference of the people of God, the exercise and impression of obedience, and other divine uses and fruits thereof, that some of the

most learned Rabbins have travelled profitably and profoundly to observe, some of them a natural, some of them a moral sense, or a reduction of many of the ceremonies and ordinances. As in the law of the leprosy, where it is said, *If the whiteness have overspread the flesh, the patient may pass abroad for clean; but if there be any whole flesh remaining, he is to be shut up for unclean;* one of them noteth a principle of nature, that putrefaction is more contagious before maturity than after: and another noteth a position of moral philosophy, that men abandoned to vice do not so much corrupt manners, as those that are half-good and half-evil. So in this, and very many other places in that law, there is to be found, besides the theological sense, much aspersion of philosophy.

In the writings of Job.

So likewise in that excellent book of Job, if it be revolved with diligence, it will be found pregnant and swelling with natural philosophy; as for example, cosmography, and the roundness of the world: *Qui extendit aquilonem super vacuum, et appendit terram super nihilum;* wherein the pensileness

of the earth, the pole of the north, and the finiteness or convexity of heaven are manifestly touched: So again, matter of astronomy; *Spiritus ejus ornavit cœlos, et obstetricante manu ejus eductus est Coluber tortuosus.* And in another place; *Nunquid conjungere valebis micantes stellas Pleiadas, aut gyrum Arcturi poteris dissipare?* Where the fixing of the stars, ever standing at equal distance, is with great elegancy noted. And in another place, *Qui facit Arcturum, et Oriona, et Hyadas, et interiora Austri;* where again he takes knowledge of the depression of the southern pole, calling it the secrets of the south, because the southern stars were in that climate unseen: Matter of generation; *Annon sicut lac mulsisti me, et sicut caseum coagulasti me, etc.* Matter of minerals; *Habet argentum venarum suarum principia: et auro locus est in quo conflatur, ferrum de terra tollitur, et lapis solutus calore in æs vertitur:* and so forwards in that chapter.

In the person of Solomon.

So likewise in the person of Solomon the king, we see the gift or endowment of wisdom and learning, both in Solomon's petition, and in God's assent thereunto, preferred

before all other terrene and temporal felicity. By virtue of which grant or donative of God, Solomon became enabled, not only to write those excellent parables, or aphorisms concerning divine and moral philosophy; but also to compile a natural history of all verdure, from the cedar upon the mountain to the moss upon the wall, (which is but a rudiment between putrefaction and an herb,) and also of all things that breathe or move. Nay, the same Solomon the king, although he excelled in the glory of treasure and magnificent buildings, of shipping and navigation, of service and attendance, of fame and renown, and the like, yet he maketh no claim to any of those glories, but only to the glory of inquisition of truth; for so he saith expressly, *The glory of God is to conceal a thing, but the glory of the king is to find it out;* as if, according to the innocent play of children, the Divine Majesty took delight to hide his works, to the end to have them found out; and as if kings could not obtain a greater honour than to be God's playfellows in that game; considering the great commandment of wits and means,

whereby nothing needeth to be hidden from them.

Neither did the dispensation of God vary in the times after our Saviour came into the world; for our Saviour himself did first shew his power to subdue ignorance, by his conference with the priests and doctors of the law, before he shewed his power to subdue nature by his miracles. And the coming of the Holy Spirit was chiefly figured and expressed in the similitude and gift of tongues, which are but *vehicula scientiæ.* In the character of Jesus.

So in the election of those instruments, which it pleased God to use for the plantation of the faith, notwithstanding that at the first he did employ persons altogether unlearned, otherwise than by inspiration, more evidently to declare his immediate working, and to abase all human wisdom or knowledge; yet, nevertheless, that counsel of his was no sooner performed, but in the next vicissitude and succession, he did send his divine truth into the world, waited on with other learnings, as with servants or hand-maids: for so we see St. Paul, who was only learned amongst the apostles, had In the apostles.

his pen most used in the Scriptures of the New Testament.

In the early fathers.

So again, we find that many of the ancient bishops and fathers of the church were excellently read, and studied in all the learning of the heathen; insomuch, that the edict of the emperor Julianus, whereby it was interdicted unto Christians to be admitted into schools, lectures, or exercises of learning, was esteemed and accounted a more pernicious engine and machination against the Christian faith, than were all the sanguinary prosecutions of his predecessors; neither could the emulation and jealousy of Gregory the First of that name, bishop of Rome, ever obtain the opinion of piety or devotion; but contrariwise received the censure of humour, malignity, and pusillanimity, even amongst holy men; in that he designed to obliterate and extinguish the memory of heathen antiquity and authors. But contrariwise it was the Christian church, which, amidst the inundations of the Scythians on the one side from the north-west, and the Saracens from the east, did preserve, in the sacred lap and bosom thereof,

the precious relicks even of heathen learning, which otherwise had been extinguished, as if no such thing had ever been.

In the reformation.

And we see before our eyes, that in the age of ourselves and our fathers, when it pleased God to call the church of Rome to account for their degenerate manners and ceremonies, and sundry doctrines obnoxious, and framed to uphold the same abuses; at one and the same time it was ordained by the divine providence, that there should attend withal a renovation, and new spring of all other knowledges: and, on the other side, we see the Jesuits, (who partly in themselves, and partly by the emulation and provocation of their example, have much quickened and strengthened the state of learning,) we see, I say, what notable service and reparation they have done to the Roman see.

Two chief services of learning to religion.

Wherefore, to conclude this part, let it be observed, that there be two principal duties and services, besides ornament and illustration, which philosophy and human learning do perform to faith and religion. The

one, because they are an effectual inducement to the exaltation of the glory of God. For as the Psalms and other Scriptures do often invite us to consider, and magnify the great and wonderful works of God; so if we should rest only in the contemplation of the exterior of them, as they first offer themselves to our senses, we should do a like injury unto the majesty of God, as if we should judge or construe of the store of some excellent jeweller, by that only which is set out toward the street in his shop. The other, because they minister a singular help and preservative against unbelief and error: for our Saviour saith, *You err, not knowing the Scriptures, nor the power of God;* laying before us two books or volumes to study, if we will be secured from error; first, the Scriptures, revealing the will of God; and then the creatures expressing his power: whereof the latter is a key unto the former: not only opening our understanding to conceive the true sense of the Scriptures, by the general notions of reason and rules of speech; but chiefly opening our belief, in drawing us into a due medita-

tion of the omnipotency of God, which is chiefly signed and engraven upon his works. Thus much therefore for divine testimony and evidence, concerning the true dignity and value of learning.

Human Proofs.

As for human proofs, it is so large a field, as, in a discourse of this nature and brevity, it is fit rather to use choice of those things which we shall produce, than to embrace the variety of them. First, therefore, in the degrees of human honor amongst the heathen, it was the highest to obtain to a veneration and adoration as a God. This unto the Christians is as the forbidden fruit. But we speak now separately of human testimony; according to which, that which the Grecians call *apotheosis*, and the Latins, *relatio inter divos*, was the supreme honour which man could attribute unto man; especially when it was given, not by a formal decree or act of state, as it was used among the Roman emperors, but by an inward assent and belief. Which honour being so high had also a degrée or middle term: for there were reckoned, above human honors, honors heroical and divine: in the attribution and distribution of

In the desire of an immortal name.

which honors, we see, antiquity made this difference: that whereas founders and uniters of states and cities, lawgivers, extirpers of tyrants, fathers of the people, and other eminent persons in civil merit, were honored but with the titles of worthies or demigods; such as were Hercules, Theseus, Minos, Romulus, and the like: on the other side, such as were inventors and authors of new arts, endowments, and commodities towards man's life, were ever consecrated amongst the gods themselves: as were Ceres, Bacchus, Mercurius, Apollo, and others; and justly: for the merit of the former is confined within the circle of an age or a nation; and is like fruitful showers, which though they be profitable and good, yet serve but for that season, and for a latitude of ground where they fall; but the other is indeed like the benefits of heaven, which are permanent and universal. The former, again, is mixed with strife and perturbation; but the latter hath the true character of divine presence, coming *in aura leni*, without noise or agitation.

In subduing the passions.

Neither is certainly that other merit of learning, in repressing the inconveniencies

which grow from man to man, much inferior to the former, of relieving the necessities which arise from natnre; which merit was lively set forth by the ancients in that feigned relation of Orpheus's theatre, where all beasts and birds assembled, and, forgetting their several appetites, some of prey, some of game, some of quarrel, stood all sociably together listening to the airs and accords of the harp; the sound whereof no sooner ceased, or was drowned by some louder noise, but every beast returned to his own nature: wherein is aptly described the nature and condition of men, who are full of savage and unreclaimed desires of profit, of lust, of revenge; which as long as they give ear to precepts, to laws, to religion, sweetly touched with eloquence and persuasion of books, of sermons, of harangues, so long is society and peace maintained; but if these instruments be silent, or that sedition and tumult make them not audible, all things dissolve into anarchy and confusion.

In its usefulness to princes.

But this appeareth more manifestly, when kings themselves, or persons of authority under them, or other governors in common-

wealths and popular estates, are endued with learning. For although he might be thought partial to his own profession, that said, "Then should people and estates be happy, "when either kings were philosophers, or "philosophers kings;" yet so much is verified by experience, that under learned princes and governors there have been ever the best times: for howsoever kings may have their imperfections in their passions and customs; yet if they be illuminated by learning, they have those notions of religion, policy, and morality, which do preserve them, and refrain them from all ruinous and peremptory errors and excesses; whispering evermore in their ears, when counsellors and servants stand mute and silent. And senators or counsellors likewise, which be learned, do proceed upon more safe and substantial principles, than counsellors which are only men of experience; the one sort keeping dangers afar off, whereas the other discover them not till they come near hand, and then trust to the agility of their wit to ward off or avoid them.

Which felicity of times under learned

princes, (to keep still the law of brevity, by using the most eminent and selected examples,) doth best appear in the age which passed from the death of Domitian the emperor until the reign of Commodus; comprehending a succession of six princes, all learned, or singular favourers and advancers of learning; which age, for temporal respects, was the most happy and flourishing that ever the Roman empire, which then was a model of the world, enjoyed: a matter revealed and prefigured unto Domitian in a dream, the night before he was slain; for he thought there was grown behind upon his shoulders a neck and a head of gold: which came accordingly to pass in those golden times which succeeded; of which princes we will make some commemoration: wherein although the matter will be vulgar, and may be thought fitter for a declamation than agreeable to a treatise enfolded as this is, yet because it is pertinent to the point in hand, *neque semper arcum tendit Apollo,* and to name them only were too naked and cursory, I will not omit it altogether.

Exemplified in the happiest period of the Roman empire.

The first was Nerva; the excellent temper

In Nerva.

of whose government is by a glance in Cornelius Tacitus touched to the life: *Postquam divus Nerva res olim insociabiles miscuisset, imperium et libertatem.* And in token of his learning, the last act of his short reign, left to memory, was a missive to his adopted son Trajan, proceeding upon some inward discontent at the ingratitude of the times, comprehended in a verse of Homer's:

Telis, Phœbe, tuis lacrymas ulciscere nostras.

In Trajan.

Trajan, who succeeded, was for his person not learned: but if we will hearken to the speech of our Saviour, that saith, *He that receiveth a prophet in the name of a prophet, shall have a prophet's reward,* he deserveth to be placed amongst the most learned princes; for there was not a greater admirer of learning, or benefactor of learning; a founder of famous libraries, a perpetual advancer of learned men to office, and a familiar converser with learned professors and preceptors, who were noted to have then most credit in court. On the other side, how much Trajan's virtue and government was admired and renowned, surely no testimony of grave and faithful history doth more lively

set forth, than that legend tale of Gregorius Magnus, bishop of Rome, who was noted for the extreme envy he bore towards all heathen excellency: and yet he is reported, out of the love and estimation of Trajan's moral virtues, to have made unto God passionate and fervent prayers for the delivery of his soul out of hell: and to have obtained it, with a caveat that he should make no more such petitions. In this prince's time also, the persecutions against the Christians received intermission, upon the certificate of Plinius Secundus, a man of excellent learning, and by Trajan advanced.

In Adrian.

Adrian, his successor, was the most curious man that lived, and the most universal inquirer; insomuch as it was noted for an error in his mind, that he desired to comprehend all things, and not to reserve himself for the worthiest things; falling into the like humour that was long before noted in Philip of Macedon; who, when he would needs over-rule and put down an excellent musician, in an argument touching music, was well answered by him again, "God forbid, "Sir," saith he, "that your fortune should

" be so bad, as to know these things better " than I." It pleased God likewise to use the curiosity of this emperor as an inducement to the peace of his church in those days. For having Christ in veneration, not as a God or Saviour, but as a wonder or novelty; and having his picture in his gallery, matched it with Apollonius, with whom, in his vain imagination, he thought he had some conformity; yet it served the turn to allay the bitter hatred of those times against the christian name, so as the church had peace during his time. And for his government civil, although he did not attain to that of Trajan's in the glory of arms, or perfection of justice, yet in deserving of the weal of the subject he did exceed him. For Trajan erected many famous monuments and buildings; insomuch as Constantine the Great in emulation was wont to call him *Parietaria*, wall-flower, because his name was upon so many walls: but his buildings and works were more of glory and triumph than use and necessity. But Adrian spent his whole reign, which was peaceable, in a perambulation or survey of the Roman empire; giv-

ing order, and making assignation where he went, for re-edifying of cities, towns, and forts decayed, and for cutting of rivers and streams, and for making bridges and passages, and for policying of cities and commonalties with new ordinances and constitutions, and granting new franchises and incorporations; so that his whole time was a very restoration of all the lapses and decays of former times.

In Antoninus Pius.

Antoninus Pius, who succeeded him, was a prince excellently learned; and had the patient and subtle wit of a schoolman; insomuch as in common speech, which leaves no virtue untaxed, he was called *cymini sector*, a carver, or a divider of cumin seed, which is one of the least seeds; such a patience he had and settled spirit, to enter into the least and most exact differences of causes, a fruit no doubt of the exceeding tranquillity and serenity of his mind; which being no ways charged or incumbered, either with fears, remorses, or scruples, but having been noted for a man of the purest goodness, without all fiction or affectation, that hath reigned or lived, made his mind continually present

and intire. He likewise approached a degree nearer unto christianity, and became, as Agrippa said unto St. Paul, *half a Christian;* holding their religion and law in good opinion, and not only ceasing persecution, but giving way to the advancement of Christians.

In L. C. Verus, and M. A. Antonius

There succeeded him the first *divi fratres,* the two adoptive brethren, Lucius Commodus Verus, (son to Ælius Verus, who delighted much in the softer kind of learning, and was wont to call the poet Martial his Virgil,) and Marcus Aurelius Antoninus; whereof the latter, who obscured his colleague and survived him long, was named the philosopher: who as he excelled all the rest in learning, so he excelled them likewise in perfection of all royal virtues; insomuch as Julianus the emperor, in his book intitled *Cæsares,* being as a pasquin or satire to deride all his predecessors, feigned that they were all invited to a banquet of the gods, and Silenus the Jester sat at the nether end of the table, and bestowed a scoff on every one as they came in; but when Marcus Philosophus came in, Silenus was gravelled, and

out of countenance, not knowing where to carp at him, save at the last he gave a glance at his patience towards his wife. And the virtue of this prince, continued with that of his predecessor, made the name of Antoninus so sacred in the world, that though it were extremely dishonoured in Commodus, Caracalla, and Heliogabalus, who all bore the name, yet when Alexander Severus refused the name, because he was a stranger to the family, the Senate with one acclamation said, *Quo modo Augustus, sic et Antoninus.* In such renown and veneration was the name of these two princes in those days, that they would have had it as a perpetual addition in all the emperor's stiles. In this emperor's time also the church for the most part was in peace; so as in this sequence of six princes we do see the blessed effects of learning in sovereignty, painted forth in the greatest table of the world.

In Queen Elizabeth.

But for a tablet, or picture of smaller volume, not presuming to speak of your majesty that liveth, in my judgment the most excellent is that of queen Elizabeth, your immediate predecessor in this part of Britain;

a princess that, if Plutarch were now alive to write lives by parallels, would trouble him, I think, to find for her a parallel amongst women. This lady was endued with learning in her sex singular, and great even amongst masculine princes; whether we speak of learning, of language, or of science, modern or ancient, divinity or humanity: and unto the very last year of her life she accustomed to appoint set hours for reading; scarcely any young student in an university more daily, or more duly. As for her government, I assure myself, I shall not exceed, if I do affirm that this part of the island never had forty-five years of better times; and yet not through the calmness of the season, but through the wisdom of her regimen.

For if there be considered of the one side, the truth of religion established; the constant peace and security; the good administration of justice; the temperate use of the prerogative, not slackened, nor much strained; the flourishing state of learning, sortable to so excellent a patroness; the convenient estate of wealth and means, both

of crown and subject; the habit of obedience, and the moderation of discontents: and there be considered, on the other side, the differences of religion, the troubles of neighbour countries, the ambition of Spain, and opposition of Rome; and then, that she was solitary, and of herself: these things, I say, considered, as I could not have chosen an instance so recent and so proper, so, I suppose, I could not have chosen one more remarkable or eminent to the purpose now in hand, which is concerning the conjunction of learning in the prince with felicity in the people.

1. Its influence on martial virtues.

Neither hath learning an influence and operation only upon civil merit and moral virtue, and the arts or temperature of peace and peaceable government; but likewise it hath no less power and efficacy in enablement towards martial and military virtue and prowess; as may be notably represented in the examples of Alexander the great, and Cæsar the dictator, mentioned before, but now in fit place to be resumed; of whose virtues and acts in war there needs no note or recital, having been the wonders

of time in that kind: but of their affections towards learning, and perfections in learning, it is pertinent to say somewhat.

In Alexander.

Alexander was bred and taught under Aristotle the great philosopher, who dedicated divers of his books of philosophy unto him: he was attended with Callisthenes and divers other learned persons, that followed him in camp, throughout his journeys and conquests. What price and estimation he had learning in doth notably appear in these three particulars: first, in the envy he used to express that he bore towards Achilles, in this, that he had so good a trumpet of his praises as Homer's verses: secondly, in the judgment or solution he gave touching that precious cabinet of Darius, which was found amongst his jewels; whereof question was made what thing was worthy to be put into it, and he gave his opinion for Homer's works: thirdly, in his letter to Aristotle, after he had set forth his books of nature, wherein he expostulateth with him for publishing the secrets or mysteries of philosophy; and gave him to understand that himself esteemed it more to excel other

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men in learning and knowledge, than in power and empire. And what use he had of learning doth appear, or rather shine, in all his speeches and answers, being full of science and use of science, and that in all variety.

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And here again it may seem a thing scholastical, and somewhat idle, to recite things that every man knoweth; but yet, since the argument I handle leadeth me thereunto, I am glad that men shall perceive I am as willing to flatter, if they will so call it, an Alexander, or a Cæsar, or an Antoninus, that are dead many hundred years since, as any that now liveth: for it is the displaying the glory of learning in sovereignty that I propound to myself, and not an humour of declaiming in any man's praises. Observe then the speech he used of Diogenes, and see if it tend not to the true state of one of the greatest questions of moral philosophy; whether the enjoying of outward things, or the contemning of them, be the greatest happiness: for when he saw Diogenes so perfectly contented with so little, he said to those that

mocked at his condition; "Were I not Alexander, I would wish to be Diogenes." But Seneca inverteth it, and saith; *Plus erat, quod hic nollet accipere, quàm quod ille posset dare.* "There were more things "which Diogenes would have refused, than "those were, which Alexander could have "given or enjoyed."

Observe again that speech which was usual with him, "That he felt his mortality chiefly "in two things, sleep and lust;" and see if it were not a speech extracted out of the depth of natural philosophy, and liker to have come out of the mouth of Aristotle, or Democritus, than from Alexander.

See again that speech of humanity and poesy; when upon the bleeding of his wounds, he called unto him one of his flatterers, that was wont to ascribe to him divine honor, and said, "Look, this is very "blood; this is not such liquor as Homer "speaketh of, which ran from Venus's hand, "when it was pierced by Diomedes."

See likewise his readiness in reprehension of logic, in the speech he used to Cassander, upon a complaint that was made against

his father Antipater: for when Alexander happened to say, "Do you think these men "would have come from so far to complain, "except they had just cause of grief?" And Cassander answered, "Yea, that was "the matter, because they thought they "should not be disproved." Said Alexander laughing: "See the subtilties of Aristotle, "to take a matter both ways, *pro et con-* "*tra*," etc.

But note again how well he could use the same art, which he reprehended, to serve his own humour; when bearing a secret grudge to Callisthenes, because he was against the new ceremony of his adoration, feasting one night where the same Callisthenes was at the table, it was moved by some after supper, for entertainment sake, that Callisthenes, who was an eloquent man, might speak of some theme or purpose, at his own choice: which Callisthenes did; choosing the praise of the Macedonian nation for his discourse, and performing the same with so good manner, as the hearers were much ravished: whereupon Alexander, nothing pleased, said, "It was easy to be

" eloquent upon so good a subject. But," saith he, " turn your stile, and let us hear " what you can say against us :" which Callisthenes presently undertook, and did with that sting and life, that Alexander interrupted him, and said, " The goodness of " the cause made him eloquent before, and " despite made him eloquent then again."

Consider farther, for tropes of rhetoric, that excellent use of a metaphor or translation, wherewith he taxed Antipater, who was an imperious and tyrannous governor: for when one of Antipater's friends commended him to Alexander for his moderation, that he did not degenerate, as his other lieutenants did, into the Persian pride in use of purple, but kept the ancient habit of Macedon, of black: " True," saith Alexander, " but Antipater is all purple within." Or that other, when Parmenio came to him in the plain of Arbela, and shewed him the innumerable multitude of his enemies, especially as they appeared by the infinite number of lights, as it had been a new firmament of stars, and thereupon advised him to assail them by night: whereupon he

answered, "That he would not steal the victory."

For matter of policy weigh that significant distinction, so much in all ages embraced, that he made between his two friends, Hephæstion and Craterus, when he said, "That "the one loved Alexander, and the other "loved the king:" describing the principal difference of princes best servants, that some in affection love their person, and others in duty love their crown.

Weigh also that excellent taxation of an error, ordinary with counsellors of princes, that they counsel their masters according to the model of their own mind and fortune, and not of their masters; when, upon Darius's great offers, Parmenio had said, "Surely "I would accept these offers, were I as Alex- "ander;" saith Alexander, "So would I, "were I as Parmenio."

Lastly, weigh that quick and acute reply, which he made when he gave so large gifts to his friends and servants, and was asked what he did reserve for himself, and he answered, "Hope:" weigh, I say, whether he had not cast up his account right, because

hope must be the portion of all that resolve upon great enterprises. For this was Cæsar's portion when he went first into Gaul, his estate being then utterly overthrown with largesses. And this was likewise the portion of that noble prince, howsoever transported with ambition, Henry duke of Guise, of whom it was usually said, that he was the greatest usurer in France, because he had turned all his estate into obligations.

To conclude therefore: as certain critics are used to say hyperbolically, "That if all "sciences were lost, they might be found "in Virgil;" so certainly this may be said truly, there are the prints and footsteps of all learning in those few speeches which are reported of this prince: the admiration of whom, when I consider him not as Alexander the great, but as Aristotle's scholar, hath carried me too far.

In Cæsar. As for Julius Cæsar, the excellency of his learning needeth not to be argued from his education, or his company, or his speeches; but in a farther degree doth declare itself in his writings and works; whereof some are extant and permanent, and some unfor-

tunately perished. For, first, we see, there is left unto us that excellent history of his own wars, which he intitled only a commentary, wherein all succeeding times have admired the solid weight of matter, and the real passages and lively images of actions and persons, expressed in the greatest propriety of words and perspicuity of narration that ever was; which that it was not the effect of a natural gift, but of learning and precept, is well witnessed by that work of his, intitled, *De analogia*, being a grammatical philosophy, wherein he did labour to make this same *vox ad placitum* to be become *vox ad licitum*, and to reduce custom of speech to congruity of speech; and took, as it were, the picture of words from the life of reason.

So we receive from him, as a monument both of his power and learning, the then reformed computation of the year; well expressing, that he took it to be as great a glory to himself to observe and know the law of the heavens, as to give law to men upon the earth.

So likewise in that book of his, *Anti-*

Cato, it may easily appear that he did aspire as well to victory of wit as victory of war; undertaking therein a conflict against the greatest champion with the pen that then lived, Cicero the orator.

So again in his book of *Apophthegms,* which he collected, we see that he esteemed it more honor to make himself but a pair of tables, to take the wise and pithy words of others, than to have every word of his own to be made an apophthegm or an oracle; as vain princes, by custom of flattery, pretend to do. And yet if I should enumerate divers of his speeches, as I did those of Alexander, they are truly such as Solomon noteth, when he saith, *Verba sapientum tanquam aculei, et tanquam clavi in altum defixi:* whereof, I will only recite three, not so delectable for elegancy, but admirable for vigour and efficacy.

As first, it is reason he be thought a master of words, that could with one word appease a mutiny in his army, which was thus: The Romans, when their generals did speak to their army, did use the word *Milites,* but when the magistrates spake to

to the people, they did use the word *Quirites*. The soldiers were in tumult, and seditiously prayed to be cashiered; not that they so meant, but by expostulation thereof to draw Cæsar to other conditions; wherein he being resolute not to give way, after some silence, he began his speech, *Ego, Quirites:* which did admit them already cashiered; wherewith they were so surprised, crossed, and confused, as they would not suffer him to go on in his speech, but relinquished their demands, and made it their suit to be again called by the name of *Milites*.

The second speech was thus: Cæsar did extremely affect the name of king; and some were set on, as he passed by, in popular acclamation to salute him king; whereupon, finding the cry weak and poor, he put it off thus, in a kind of jest, as if they had mistaken his sirname; *Non rex sum, sed Cæsar;* a speech, that if it be searched, the life and fulness of it can scarce be expressed: for, first, is was a refusal of the name, but yet not serious: again, it did signify an infinite confidence and magna-

nimity, as if he presumed Cæsar was the greater title; as by his worthiness it is come to pass till this day: but chiefly it was a speech of great allurement toward his own purpose; as if the state did strive with him but for a name, whereof mean families were vested; for Rex was a surname with the Romans, as well as King is with us.

The last speech which I will mention, was used to Metellus; when Cæsar, after war declared, did possess himself of the city of Rome; at which time entering into the inner treasury to take the money there accumulated, Metellus, being tribune, forbad him: whereto Cæsar said, "That if he did not "desist, he would lay him dead in the "place," And presently taking himself up, he added, "Young man, it is harder "for me to speak it, than to do it;" *Adolescens, durius est mihi hoc dicere quàm facere.* A speech compounded of the greatest terror and greatest clemency that could proceed out of the mouth of man.

But to return, and conclude with him: it is evident, himself knew well his own perfection in learning, and took it upon him;

as appeared when, upon occasion that some spake what a strange resolution it was in Lucius Sylla to resign his dictature; he scoffing at him, to his own advantage, answered, "That Sylla could not skill of letters, and "therefore knew not how to dictate."

And here it were fit to leave this point, touching the concurrence of military virtue and learning, for what example would come with any grace after those two of Alexander and Cæsar? were it not in regard of the rareness of circumstance, that I find in one particular, as that which did so suddenly pass from extreme scorn to extreme wonder; and it is of Xenophon the philosopher, who went from Socrates's school into Asia, in the expedition of Cyrus the younger, against king Artaxerxes. This Xenophon at that time was very young, and never had seen the wars before; neither had any command in the army, but only followed the war as a voluntary, for the love and conversation of Proxenus his friend. He was present when Falinus came in message from the great king to the Grecians, after that Cyrus was slain in the field, and they a handful of men left to

Extraordinary instance in Xenophon.

themselves in the midst of the king's territories, cut off from their country by many navigable rivers, and many hundred miles. The message imported, that they should deliver up their arms, and submit themselves to the king's mercy. To which message before answer was made, divers of the army conferred familiarly with Falinus: and amongst the rest Xenophon happened to say, "Why, Falinus, we have now but these "two things left, our arms and our virtue? "and if we yield up our arms, how shall we "make use of our virtue?" Whereto Falinus, smiling on him, said, "If I be not deceived, "young gentleman, you are an Athenian, "and, I believe, you study philosophy, and "it is pretty that you say; but you are "much abused, if you think your virtue can "withstand the king's power." Here was the scorn: the wonder followed; which was, that this young scholar, or philosopher, after all the captains were murdered in parley by treason, conducted those ten thousand foot, through the heart of all the king's high countries, from Babylon to Græcia in safety, in despite of all the king's forces, to the asto-

nishment of the world, and the encouragement of the Grecians in time succeeding to make invasion upon the kings of Persia; as was after purposed by Jason the Thessalian, attempted by Agesilaus the Spartan, and atchieved by Alexander the Macedonian, all upon the ground of the act of that young scholar.

2. Its importance to the moral and private virtues.

To proceed now from imperial and military virtue to moral and private virtue: first, it is an assured truth, which is contained in the verses:

Scilicet ingenuas didicisse fideliter artes,
Emollit mores, nec sinit esse feros.

It taketh away the wildness and barbarism and fierceness of men's minds: but indeed the accent had need be upon *fideliter:* for a little superficial learning doth rather work a contrary effect. It taketh away all levity, temerity, and insolency, by copious suggestion of all doubts and difficulties, and acquainting the mind to balance reasons on both sides, and to turn back the first offers and conceits of the mind, and to accept of nothing but examined and tried. It taketh away vain admiration of any thing, which

is the root of all weakness: for all things are admired, either because they are new, or because they are great. For novelty, no man that wadeth in learning or contemplation throughly, but will find that printed in his heart *Nil novi super terram*. Neither can any man marvel at the play of puppets, that goeth behind the curtain, and adviseth well of the motion. And for magnitude, as Alexander the Great after that he was used to great armies, and the great conquests of the spacious provinces in Asia, when he received letters out of Greece, of some fights and services there, which were commonly for a passage or a fort or some walled town at the most, he said, "It seemed to him, that he "was advertised of the battle of the frogs "and the mice, that the old tales went of." So certainly, if a man meditate upon the universal frame of nature, the earth with men upon it, the divineness of souls excepted, will not seem much other than an ant-hill, where some ants carry corn, and some carry their young, and some go empty, and all to-and-fro a little heap of dust. It taketh away or mitigateth fear of death, or adverse fortune;

which is one of the greatest impediments of virtue, and imperfections of manners. For if a man's mind be deeply seasoned with the consideration of the mortality and corruptible nature of things, he will easily concur with Epictetus, who went forth one day and saw a woman weeping for her pitcher of earth that was broken; and went forth the next day, and saw a woman weeping for her son that was dead; and thereupon said, *Heri vidi fragilem frangi, hodie vidi mortalem mori.* And therefore Virgil did excellently and profoundly couple the knowledge of causes and the conquest of all fears together, as *concomitantia:*

Felix, qui potuit rerum cognoscere causas,
Quique metus omnes, et inexorabile fatum
Subjecit pedibus, strepitumque Acherontis avari.

It were too long to go over the particular remedies which learning doth minister to all the diseases of the mind; sometimes purging the ill-humours, sometimes opening the obstructions, sometimes helping digestion, sometimes increasing appetite, sometimes healing the wounds and exulcerations thereof, and

the like; and therefore I will conclude with that which hath *rationem totius*, which is, that it disposeth the constitution of the mind not to be fixed or settled in the defects thereof, but still to be capable and susceptible of growth and reformation. For the unlearned man knows not what it is to descend into himself, or to call himself to account; nor the pleasure of that *suavissima vita, indies sentire se fieri meliorem*. The good parts he hath he will learn to shew to the full, and use them dexterously, but not much to increase them: the faults he hath he will learn how to hide and colour them, but not much to amend them: like an ill mower, that mows on still, and never whets his scythe. Whereas with the learned man it fares otherwise, that he doth ever intermix the correction and amendment of his mind with the use and employment thereof. Nay farther, in general and in sum, certain it is that *veritas* and *bonitas* differ but as the seal and the print: for truth prints goodness; and they be the clouds of error which descend in the storms of passions and perturbations.

From moral virtue let us pass on to matter

of power and commandment, and consider whether in right reason there be any comparable with that, wherewith knowledge investeth and crowneth man's nature. We see the dignity of the commandment is according to the dignity of the commanded: to have commandment over beasts, as herdmen have, is a thing contemptible; to have commandment over children, as schoolmasters have, is a matter of small honor; to have commandment over galley slaves is a disparagement rather than an honor. Neither is the commandment of tyrants much better, over people which have put off the generosity of their minds: and therefore it was ever holden, that honors in free monarchies and commonwealths had a sweetness more than in tyrannies, because the commandment extendeth more over the wills of men, and not only over their deeds and services. And therefore, when Virgil putteth himself forth to attribute to Augustus Cæsar the best of human honors, he doth it in these words:

Its help to Power.

victorque volentes
Per populos dat jura, viamque affectat Olympo.

But yet the commandment of knowledge is higher than the commandment over the will; for it is a commandment over the reason, belief, and understanding of man, which is the highest part of the mind, and giveth law to the will itself: for there is no power on earth which setteth up a throne or chair of state in the spirits and souls of men, and in their cogitations, imaginations, opinions, and beliefs, but knowledge and learning. And therefore we see the detestable and extreme pleasure that arch-heretics, and false prophets, and impostors are transported with, when they once find in themselves that they have a superiority in the faith and conscience of men; so great, as, if they have once tasted of it, it is seldom seen that any torture or persecution can make them relinquish or abandon it. But as this is what the author of the *Revelation* calleth the depth or profoundness *of Satan;* so by argument of contraries, the just and lawful sovereignty over men's understanding, by force of truth rightly interpreted, is that which approacheth nearest to the similitude of the divine rule.

To Fortune. As for fortune and advancement, the bene-

ficence of learning is not so confined to give fortune only to states and commonwealths, as it doth not likewise give fortune to particular persons. For it was well noted long ago, that Homer hath given more men their livings, than either Sylla, or Cæsar, or Augustus ever did, notwithstanding their great largesses and donatives, and distributions of lands to so many legions; and no doubt it is hard to say, whether arms or learning have advanced greater numbers. And in case of sovereignty we see, that if arms or descent have carried away the kingdom, yet learning hath carried the priesthood, which ever hath been in some competition with empire.

To Pleasure.

Again, for the pleasure and delight of knowledge and learning, it far surpasseth all other in nature: for, shall the pleasures of the affections so exceed the pleasure of the senses, as much as the obtaining of desire or victory exceedeth a song or a dinner; and must not, of consequence, the pleasures of the intellect or understanding exceed the pleasures of the affections? We see in all other pleasures there is satiety, and after they be used, their verdure departeth; which

sheweth well they be but deceits of pleasure, and not pleasures; and that it was the novelty which pleased, and not the quality: and therefore we see that voluptuous men turn friers, and ambitious princes turn melancholy. But of knowledge there is no satiety, but satisfaction and appetite are perpetually interchangeable; and therefore it appeareth to be good in itself simply, without fallacy or accident. Neither is that pleasure of small efficacy and contentment to the mind of man, which the poet Lucretius describeth elegantly,

Suave mari magno, turbantibus æquora ventis, etc.

"It is a view of delight," saith he, "to stand "or walk upon the shore side, and to see "a ship tossed with tempest upon the sea; "or to be in a fortified tower, and to see two "battles join upon a plain; but it is plea- "sure incomparable, for the mind of man "to be settled, landed, and fortified in the "certainty of truth; and from thence to "descry and behold the errors, perturbations, "labours, and wanderings up and down of "other men."

Lastly, leaving the vulgar arguments, that by learning man excelleth man in that wherein man excelleth beasts; that by learning man ascendeth to the heavens and their motions, where in body he cannot come, and the like: let us conclude with the dignity and excellency of knowledge and learning in that whereunto man's nature doth most aspire, which is, immortality or continuance: for to this tendeth generation, and raising of houses and families; to this tend buildings, foundations, and monuments; to this tendeth the desire of memory, fame, and celebration, and in effect the strength of all other human desires. We see then how far the monuments of wit and learning are more durable than the monuments of power, or of the hands. For have not the verses of Homer continued twenty-five hundred years, or more, without the loss of a syllable or letter; during which time, infinite palaces, temples, castles, cities, have been decayed and demolished? It is not possible to have the true pictures or statues of Cyrus, Alexander, and Cæsar; no, nor of the kings or great personages of

To immortality.

much later years; for the originals cannot last, and the copies cannot but lose of the life and truth. But the images of men's wits and knowledges remain in books, exempted from the wrong of time, and capable of perpetual renovation. Neither are they fitly to be called images, because they generate still, and cast their seeds in the minds of others, provoking and causing infinite actions and opinions in succeeding ages: so that, if the invention of the ship was thought so noble, which carrieth riches and commodities from place to place, and consociateth the most remote regions in participation of their fruits; how much more are letters to be magnified, which, as ships, pass through the vast seas of time, and make ages so distant to participate of the wisdom, illuminations, and inventions, the one of the other? Nay farther, we see, some of the philosophers which were least divine, and most immersed in the senses, and denied generally the immortality of the soul; yet came to this point, that whatsoever motions the spirit of man could act and perform without the organs of the

body, they thought, might remain after death, which were only those of the understanding, and not of the affections; so immortal and incorruptible a thing did knowledge seem unto them to be. But we, that know by divine revelation, that not only the understanding but the affections purified, not only the spirit but the body changed, shall be advanced to immortality, do disclaim these rudiments of the senses. But it must be remembered both in this last point, and so it may likewise be needful in other places, that in probation of the dignity of knowledge or learning, I did in the beginning separate divine testimony from human, which method I have pursued, and so handled them both apart.

Conclusion.

Nevertheless I do not pretend, and I know it will be impossible for me, by any pleading of mine, to reverse the judgment, either of Æsop's cock, that preferred the barley-corn before the gem; or of Midas, that being chosen judge between Apollo president of the Muses, and Pan god of the flocks, judged for plenty; or of Paris, that judged for beauty and love against wisdom and

power; or of Agrippina, *occidat matrem, modo imperet,* that preferred empire with any condition never so detestable; or of Ulysses, *qui vetulam prætulit immortalitati,* being a figure of those which prefer custom and habit before all excellency; or of a number of the like popular judgments. For these things must continue as they have been: but so will that also continue whereupon learning hath ever relied, and which faileth not: *justificata est Sapientia à filiis suis.*

THE

SECOND BOOK OF FRANCIS BACON:

OF THE

PROFICIENCE AND ADVANCEMENT

OF

LEARNING, DIVINE AND HUMAN.

TO THE KING.

It might seem to have more convenience, though it come often otherwise to pass, excellent king, that those, which are fruitful in their generations, and have in themselves the foresight of immortality in their descendants, should likewise be more careful of the good estate of future times, unto which they know they must transmit and commend over their dearest pledges. Queen Elizabeth was a sojourner in the world, in respect of her unmarried life, and was a

blessing to her own times; and yet so as the impression of her good government, besides her happy memory, is not without some effect which doth survive her. But to your majesty, whom God hath already blessed with so much royal issue, worthy to continue and represent you for ever; and whose youthful and fruitful bed doth yet promise many the like renovations; it is proper and agreeable to be conversant, not only in the transitory parts of good government, but in those acts also which are in their nature permanent and perpetual: among the which, if affection do not transport me, there is not any more worthy than the farther endowment of the world with sound and fruitful knowledge. For why should a few received authors stand up like Hercules's columns, beyond which there should be no sailing or discovering, since we have so bright and benign a star as your majesty, to conduct and prosper us? To return therefore where we left, it remaineth to consider of what kind those acts are, which have been undertaken and performed by kings and others for the increase and advancement of learn-

How learning is to be advanced.

ing: wherein I purpose to speak actively, without digressing or dilating.

Let this ground therefore be laid, that all works are overcome by amplitude of reward, by soundness of direction, and by the conjunction of labours. The first multiplieth endeavour, the second preventeth error, and the third supplieth the frailty of man; but the principal of these is direction: for *claudus in via antevertit cursorem extra viam;* and Solomon excellently setteth it down, *If the iron be not sharp, it requireth more strength; but wisdom is that which prevaileth:* signifying that the invention or election of the mean is more effectual than any inforcement or accumulation of endeavours. This I am induced to speak, for that (not derogating from the noble intention of any that have been deservers towards the state of learning) I do observe nevertheless, that their works and acts are rather matters of magnificence and memory, than of progression and proficience; and tend rather to augment the mass of learning in the multitude of learned men, than to rectify or raise the sciences themselves.

Three objects important to learning.

The works or acts of merit towards learning are conversant about three objects: the places of learning, the books of learning, and the persons of the learned. For as water, whether it be the dew of heaven, or the springs of the earth, doth scatter and lose itself in the ground, except it be collected into some receptacle, where it may by union comfort and sustain itself, (and for that cause the industry of man hath made and framed spring-heads, conduits, cisterns, and pools, which men have accustomed likewise to beautify and adorn with accomplishments of magnificence and state, as well as of use and necessity) so this excellent liquor of knowledge, whether it descend from divine inspiration, or spring from human sense, would soon perish and vanish to oblivion, if it were not preserved in books, traditions, conferences, and places appointed, as universities, colleges, and schools, for the receipt and comforting of the same.

Plans for its advancement.

The works which concern the seats and places of learning are ~~four~~ foundations, endowments with revenues, endowments with franchises and privileges, institutions and or-

* foundations & buildings

dinances for government; all tending to quietness and privateness of life, and discharge of cares and troubles; much like the stations which Virgil prescribeth for the hiving of bees:

Principio sedes apibus statioque petenda,
Quo neque sit ventis aditus, etc.

The works touching books are two; first libraries, which are as the shrines where all the relicks of the ancient saints, full of true virtue, and that without delusion or imposture, are preserved and reposed: secondly, new editions of authors, with more correct impressions, more faithful translations, more profitable glosses, more diligent annotations, and the like.

The works pertaining to the persons of learned men, besides the advancement and countenancing of them in general, are two: the reward and designation of readers in sciences already extant and invented; and the reward and designation of writers and inquirers concerning any parts of learning not sufficiently laboured and prosecuted.

These are summarily the works and acts, wherein the merits of many excellent princes

and other worthy personages have been conversant. As for any particular commemorations, I call to mind what Cicero said, when he gave general thanks; *Difficile non aliquem, ingratum quenquam præterire.* Let us rather, according to the Scriptures, look unto that part of the race which is before us, than look back to that which is already attained.

DEFECTS OF LEARNED INSTITUTIONS.

1. In the subjects studied.

First therefore, amongst so many great foundations of colleges in Europe, I find strange that they are all dedicated to professions, and none left free to arts and sciences at large. For if men judge that learning should be referred to action, they judge well; but in this they fall into the error described in the ancient fable, in which the other parts of the body did suppose the stomach had been idle, because it neither performed the office of motion, as the limbs do, nor of sense, as the head doth; but yet, notwithstanding, it is the stomach that

digesteth and distributeth to all the rest: so if any man think philosophy and universality to be idle studies, he doth not consider that all professions are from thence served and supplied. And this I take to be a great cause that hath hindered the progression of learning, because these fundamental knowledges have been studied but in passage. For if you will have a tree bear more fruit than it hath used to do, it is not any thing you can do to the boughs, but it is the stirring of the earth, and putting new mould about the roots, that must work it. Neither is it to be forgotten, that this dedicating of foundations and donations to professory learning hath not only had a malign aspect and influence upon the growth of sciences, but hath also been prejudicial to states and governments. For hence it proceedeth that princes find a solitude in regard of able men to serve them in causes of state, because there is no education collegiate which is free; where such as were so disposed might give themselves to histories, modern languages, books

of policy and civil discourse, and other the like enablements unto service of state.

2. In the smallness of the salaries.

And because founders of colleges do plant, and founders of lectures do water, it followeth well in order to speak of the defect which is in public lectures; namely, in the smallness and meanness of the salary or reward which in most places is assigned unto them; whether they be lectures of arts, or of professions. For it is necessary to the progression of sciences that readers be of the most able and sufficient men, as those which are ordained for generating and propagating of sciences, and not for transitory use. This cannot be, except their condition and endowment be such as may content the ablest man to appropriate his whole labour, and continue his whole age in that function and attendance; and therefore must have a proportion answerable to that mediocrity or competency of advancement, which may be expected from a profession or the practice of a profession. So as, if you will have sciences flourish, you must observe David's military law, which was, "That those which staid with the

"carriage should have equal part with those "which were in the action;" else will the carriages be ill attended. So readers in sciences are indeed the guardians of the stores and provisions of sciences, whence men in active courses are furnished, and therefore ought to have equal entertainment with them; otherwise if the fathers in sciences be of the weakest sort, or be ill-maintained,

Et patrum invalidi referent jejunia nati.

3. In the apparatus for experiments.

Another defect I note, wherein I shall need some alchemist to help me, who call upon men to sell their books, and to build furnaces, quitting and forsaking Minerva and the Muses as barren virgins, and relying upon Vulcan. But certain it is, that unto the deep, fruitful, and operative study of many sciences, especially natural philosophy and physic, books be not the only instrumentals; wherein also the beneficence of men hath not been altogether wanting: for we see spheres, globes, astrolabes, maps, and the like, have been provided as appurtenances to astronomy and cosmography, as well as books; we see likewise that some places instituted for physic have annexed

the commodity of gardens for simples of all sorts, and do likewise command the use of dead bodies for anatomies. But these do respect but a few things. In general, there will hardly be any main proficience in the disclosing of nature, except there be some allowances for expences about experiments; whether they be experiments appertaining to Vulcanus or Dædalus, furnace or engine, or any other kind; and therefore as secretaries and spies of princes and states bring in bills for intelligence, so you must allow the spies and intelligencers of nature to bring in their bills, or else you shall be ill advertised.

And if Alexander made such a liberal assignation to Aristotle of treasure for the allowance of hunters, fowlers, fishers, and the like, that he might compile an history of nature, much better do they deserve it that travel in arts of nature.

4. In neglect of consultations and visitations.

Another defect which I note, is an intermission or neglect, in those which are governors in universities, of consultation; and in princes or superior persons, of visitation: to enter into account and conside-

ration, whether the readings, exercises, and other customs appertaining unto learning, anciently begun, and since continued, be well instituted or no; and thereupon to ground an amendment or reformation in that which shall be found inconvenient. For it is one of your majesty's own most wise and princely maxims, "That in all usages "and precedents, the times be considered "wherein they first began; which if they "were weak or ignorant, it derogateth from "the authority of the usage, and leaveth it "for suspect." And therefore in as much as most of the usages and orders of the universities were derived from more obscure times, it is the more requisite they be re-examined. In this kind I will give an instance or two, for example sake, of things that are most obvious and familiar: the one is a matter, which though it be ancient and general, yet I hold it to be an error; which is, that scholars in universities come too soon and too unripe to logic and rhetoric, arts fitter for graduates than children and novices: for these two, rightly taken, are the gravest of sciences, being the arts of arts;

the one for judgment, the other for ornament; and they be the rules and directions how to set forth and dispose matter; and therefore for minds empty and unfraught with matter, and which have not gathered that which Cicero calleth *sylva* and *supellex*, stuff and variety, to begin with those arts, (as if one should learn to weigh, or to measure, or to paint the wind,) doth work but this effect, that the wisdom of those arts, which is great and universal, is almost made contemptible, and is degenerate into childish sophistry and ridiculous affectation. And farther, the untimely learning of them hath drawn on, by consequence, the superficial and unprofitable teaching and writing of them, as fittest indeed to the capacity of children. Another is a lack I find in the exercises used in the universities, which do make too great a divorce between invention and memory; for their speeches are either premeditate, *in verbis conceptis*, where nothing is left to invention; or merely extemporal, where little is left to memory; whereas in life and action there is least use of either of these, but rather

of intermixtures of premeditation and invention, notes and memory; so as the exercise fitteth not the practice, nor the image the life: and it is ever a true rule in exercises, that they be framed as near as may be to the life of practice, for otherwise they do pervert the motions and faculties of the mind, and not prepare them. The truth whereof is not obscure, when scholars come to the practices of professions, or other actions of civil life; which when they set into, this want is soon found by themselves, and sooner by others. But this part, touching the amendment of the institutions and orders of universities, I will conclude with the clause of Cæsar's letter to Oppius and Balbus, *Hoc quemadmodum fieri possit, nonnulla mihi in mentem veniunt, et multa reperiri possunt; de iis rebus rogo vos ut cogitationem suscipiatis.*

5. In want of correspondence with foreign universities.

Another defect, which I note, ascendeth a little higher than the precedent; for as the proficience of learning consisteth much in the orders and institutions of universities in the same states and kingdoms, so it would be yet more advanced, if there were more intelligence mutual between the uni-

versities of Europe than now there is. We see there be many orders and foundations, which though they be divided under several sovereignties and territories, yet they take themselves to have a kind of contract, fraternity, and correspondence one with another, insomuch as they have provincials and generals. And surely as nature createth brotherhood in families, and arts mechanical contract brotherhoods in commonalties, and the anointment of God superinduceth a brotherhood in kings and bishops; so in like manner there cannot but be a fraternity in learning and illumination, relating to that paternity which is attributed to God, who is called the father of illuminations or lights.

6. In not appointing inquirers into certain parts of knowledge.

The last defect which I will note is, that there hath not been, or very rarely been, any public designation of writers or inquirers concerning such parts of knowledge as may appear not to have been already sufficiently laboured or undertaken; unto which point it is an inducement to enter into a view and examination what parts of learning have been prosecuted,

and what omitted: for the opinion of plenty is amongst the causes of want, and the great quantity of books maketh a shew rather of superfluity than lack; which surcharge, nevertheless, is not to be remedied by making no more books, but by making more good books, which, as the serpent of Moses, might devour the serpents of the enchanters.

The removing of all the defects formerly enumerated, except the last, and of the active part also of the last, (which is the designation of writers,) are *opera basilica;* towards which the endeavours of a private man may be but as an image in a cross-way, that may point at the way, but cannot go it: but the inducing part of the latter, which is the survey of learning, may be set forward by private travel. Wherefore I will now attempt to make a general and faithful perambulation of learning, with an inquiry what parts thereof lie fresh and waste, and not improved and converted by the industry of man; to the end that such a plot, made and recorded to memory, may both minister light to any public designation, and

Purpose of this book.

also serve to excite voluntary endeavours: wherein nevertheless, my purpose is at this time to note only omissions and deficiencies, and not to make any redargution of errors, or incomplete prosecutions; for it is one thing to set forth what ground lieth unmanured, and another thing to correct ill husbandry in that which is manured.

In the handling and undertaking of which work I am not ignorant what it is that I do now move and attempt, nor insensible of mine own weakness to sustain my purpose; but my hope is that, if my extreme love to learning carry me too far, I may obtain the excuse of affection; for that "it is not granted to man "to love and to be wise." But, I know well, I can use no other liberty of judgment than I must leave to others; and I, for my part, shall be indifferently glad either to perform myself, or accept from another, that duty of humanity; *Nam qui erranti comiter monstrat viam, etc.* I do foresee likewise, that of those things which I shall enter and register as deficiencies and omissions, many will conceive and censure that some of them are already done and extant; others to be but

curiosities, and things of no great use; and others to be of too great difficulty, and almost impossibility to be compassed and effected: but for the two first, I refer myself to the particulars; for the last, touching impossibility, I take it those things are to be held possible which may be done by some person, though not by every one; and which may be done by many, though not by any one; and which may be done in succession of ages, though not within the hour-glass of one man's life; and which may be done by public designation, though not by private endeavour.

But, notwithstanding, if any man will take to himself rather that of Solomon, *Dicit piger, Leo est in via,* than that of Virgil, *Possunt, quia posse videntur;* I shall be content that my labours be esteemed but as the better sort of wishes; for as it asketh some knowledge to demand a question not impertinent, so it requireth some sense to make a wish not absurd.

Distribution of the parts of Learning.

THE parts of human learning have reference to the three parts of man's Under-

standing, which is the seat of learning: History to his Memory, Poesy to his Imagination, and Philosophy to his Reason. Divine learning receiveth the same distribution; for the spirit of man is the same, though the revelation of oracle and sense be diverse: so as theology consisteth also of history of the church; of parables, which is divine poesy; and of holy doctrine or precept: for as for that part which seemeth supernumerary, which is prophecy, it is but divine history; which hath that prerogative over human, as the narration may be before the fact as well as after

HISTORY.

History is *Natural, Civil, Ecclesiastical,* and *Literary;* whereof the three first I allow as extant, the fourth I note as deficient. For no man hath propounded to himself the general state of learning to be described and represented from age to age, as many have done the works of nature, and the state civil and ecclesiastical; without which the history

1. Literary History.

of the world seemeth to me to be as the statue of Polyphemus with his eye out; that part being wanting which doth most shew the spirit and life of the person: And yet I am not ignorant that in divers particular sciences, as of the jurisconsults, the mathematicians, the rhetoricians, the philosophers, there are set down some small memorials of the schools, authors and books; and so likewise some barren relations touching the invention of arts or usages.

But a just story of learning, containing the antiquities and originals of knowledges and their sects, their inventions, their traditions, their diverse administrations and managings, their flourishings, their oppositions, decays, depressions, oblivions, removes, with the causes and occasions of them, and all other events concerning learning, throughout the ages of the world, I may truly affirm to be wanting.

The use and end of which work I do not so much design for curiosity, or satisfaction of those that are the lovers of learning, but chiefly for a more serious and grave purpose; which is this in few words, that it will make

learned men wise in the use and administration of learning. For it is not St. Augustine's nor St. Ambrose's works that will make so wise a divine as ecclesiastical history thoroughly read and observed; and the same reason is of learning.

2. Natural History.

HISTORY of *Nature* is of three sorts; of nature in course, of nature erring or varying, and of nature altered or wrought; that is history of creatures, history of marvels, and history of arts.

The first of these, no doubt, is extant, and that in good perfection; the two latter are handled so weakly and unprofitably, as I am moved to note them as deficient.

History of marvels deficient.

For I find no sufficient or competent collection of the works of nature which have a digression and deflexion from the ordinary course of generations, productions, and motions; whether they be singularities of place and region, or the strange events of time and chance, or the effects of yet unknown properties, or the instances of exception to general kinds: it is true, I find a number of books of fabulous experiments and secrets, and frivolous impostures for pleasure and strange-

ness; but a substantial and severe collection of the heteroclites or irregulars of nature, well examined and described, I find not, especially not with due rejection of fables and popular errors: for as things now are, if an untruth in nature be once on foot, what by reason of the neglect of examination, and countenance of antiquity, and what by reason of the use of the opinion in similitudes and ornaments of speech, it is never called down.

The use of this work, honoured with a precedent in Aristotle, is nothing less than to give contentment to the appetite of curious and vain wits, as the manner of mirabilaries is to do; but for two reasons, both of great weight; the one, to correct the partiality of axioms and opinions, which are commonly framed only upon common and familiar examples; the other, because from the wonders of nature is the nearest intelligence and passage towards the wonders of art: for it is no more but by following, and as it were hounding nature in her wanderings, to be able to lead her afterwards to the same place again.

Neither am I of opinion, in this history of

marvels, that superstitious narrations of sorceries, witchcrafts, dreams, divinations, and the like, where there is an assurance and clear evidence of the fact, be altogether excluded. For it is not yet known in what cases and how far effects attributed to superstition do participate of natural causes: and therefore howsoever the practice of such things is to be condemned, yet from the speculation and consideration of them light may be taken, not only for the discerning of the offences, but for the farther disclosing of nature. Neither ought a man to make scruple of entering into these things for inquisition of truth, as your majesty hath shewed in your own example; who with the two clear eyes of religion and natural philosophy have looked deeply and wisely into these shadows, and yet proved yourself to be of the nature of the sun, which passeth through pollutions, and itself remains as pure as before.

But this I hold fit, that these narrations, which have mixture with superstition, be sorted by themselves, and not be mingled with the narrations which are merely and sincerely natural.

But as for the narrations touching the prodigies and miracles of religions, they are either not true, or not natural; and therefore impertinent for the story of nature.

History of Arts deficient.

For history of nature wrought or mechanical, I find some collections made of agriculture, and likewise of manual arts; but commonly with a rejection of experiments familiar and vulgar.

For it is esteemed a kind of dishonour unto learning to descend to inquiry or meditation upon matters mechanical, except they be such as may be thought secrets, rarities, and special subtilties; which humour of vain and supercilious arrogancy is justly derided in Plato; where he brings in Hippias, a vaunting sophist, disputing with Socrates, a true and unfeigned inquisitor of truth; where the subject being touching beauty, Socrates, after his wandering manner of inductions, put first an example of a fair virgin, and then of a fair horse, and then of a fair pot well glazed, whereat Hippias was offended; and said, "More than for courtesy's sake, he "did think much to dispute with any that "did alledge such base and sordid in-

" stances :" whereunto Socrates answered, " You have reason, and it becomes you well, " being a man so trim in your vestments." *etc.* And so goeth on in irony.

But the truth is, they be not the highest instances that give the securest information ; as may be well expressed in the tale so common of the philosopher, that while he gazed upwards to the stars fell into the water ; for if he had looked down he might have seen the stars in the water, but looking aloft he could not see the water in the stars. So it cometh often to pass, that mean and small things discover great, better than great can discover the small ; and therefore Aristotle noteth well, " that the nature of every thing " is best seen in its smallest portions." And for that cause he inquireth the nature of a commonwealth, first in a family, and the simple conjugations of man and wife, parent and child, master and servant, which are in every cottage. Even so likewise the nature of this great city of the world, and the policy thereof, must be first sought in mean concordances and small portions. So we see how that secret of nature, of the turning of iron

touched with the loadstone towards the north, was found out in needles of iron, not in bars of iron.

But if my judgment be of any weight, the use of History Mechanical is of all others the most radical and fundamental towards natural philosophy; such natural philosophy as shall not vanish in the fume of subtile, sublime, or delectable speculation, but such as shall be operative to the endowment and benefit of man's life: for it will not only minister and suggest for the present many ingenious practices in all trades, by a connexion and transferring of the observations of one art to the use of another, when the experiences of several mysteries shall fall under the consideration of one man's mind; but farther, it will give a more true and real illumination concerning causes and axioms than is hitherto attained.

For like as a man's disposition is never well known till he be crossed, nor Proteus ever changed shapes till he was straitened and held fast; so the passages and variations of nature cannot appear so fully in the liberty

of nature, as in the trials and vexations of art.

3. Civil History.

For *Civil History*, it is of three kinds; not unfitly to be compared with the three kinds of pictures or images: for of pictures or images, we see, some are unfinished, some are perfect, and some are defaced. So of histories we may find three kinds, Memorials, Perfect Histories, and Antiquities; for memorials are history unfinished, or the first or rough draughts of history; and antiquities are history defaced, or some remnants of history which have casually escaped the shipwreck of time.

Of Memorials.

Memorials, or preparatory history, are of two sorts; whereof the one may be termed Commentaries, and the other Registers. Commentaries are they which set down a continuance of the naked events and actions, without the motives or designs, the counsels, the speeches, the pretexts, the occasions and other passages of action: for this is the true nature of a Commentary; though Cæsar, in modesty mixed with greatness, did for his

pleasure apply the name of a Commentary to the best history of the world. Registers are collections of public acts, as decrees of council, judicial proceedings, declarations and letters of state, orations and the like, without a perfect continuance or contexture of the thread of the narration.

Of Antiquities.

Antiquities, or remnants of history, are, as was said, *tanquam tabula naufragii*; when industrious persons, by an exact and scrupulous diligence and observation, out of monuments, names, words, proverbs, traditions, private records and evidences, fragments of stories, passages of books that concern not story, and the like, do save and recover somewhat from the deluge of time.

In these kinds of imperfect histories I do assign no deficience, for they are *tanquam imperfecte mista*; and therefore any deficience in them is but their nature.

Epitomes.

As for the corruptions and moths of history, which are Epitomes, the use of them deserveth to be banished, as all men of sound judgment have confessed; as those that have fretted and corroded the sound bodies of many

excellent histories, and wrought them into base and unprofitable dregs.

Perfect History of three kinds.

History, which may be called *Just* and *Perfect History*, is of three kinds, according to the object which it propoundeth, or pretendeth to represent: for it either representeth a time, or a person, or an action. The first we call Chronicles, the second Lives, and the third Narrations or Relations.

Of these, although the first be the most complete and absolute kind of history, and hath most estimation and glory, yet the second excelleth it in profit and use, and the third in verity and sincerity: for history of times representeth the magnitude of actions, and the public faces and deportments of persons, and passeth over in silence the smaller passages and motions of men and matters.

But such being the workmanship of God, as he doth hang the greatest weight upon the smallest wires, *maxima è minimis suspendens*, it comes therefore to pass, that such histories do rather set forth the pomp of business than the true and inward resorts thereof. But Lives, if they be well written, propounding to themselves a person to repre-

sent, in whom actions both greater and smaller, public and private, have a commixture, must of a necessity contain a more true, native, and lively representation. So again narrations and relations of actions, as the War of Peloponnesus, the Expedition of Cyrus Minor, the Conspiracy of Catiline, cannot but be more purely and exactly true than histories of times, because they may choose an argument comprehensible within the notice and instructions of the writer: whereas he that undertaketh the story of a time, especially of any length, cannot but meet with many blanks and spaces which he must be forced to fill up out of his own wit and conjecture.

Of Chronicles.

For the *History of Times*, I mean of civil history, the providence of God hath made the distribution: for it hath pleased God to ordain and illustrate two exemplar states of the world for arms, learning, moral virtue, policy, and laws; the state of Græcia, and the state of Rome; the histories whereof, occupying the middle part of time, have more ancient to them, histories which may by one common name be termed the Antiquities of

the world; and after them, histories which may be likewise called by the name of Modern History.

Heathen Antiquities.

Now to speak of the deficiencies. As to the heathen antiquities of the world, it is in vain to note them for deficient: deficient they are no doubt, consisting mostly of fables and fragments; but the deficience cannot be holpen; for antiquity is like fame, *caput inter nubila condit*, her head is muffled from our sight. For the history of the exemplar states, it is extant in good perfection. Not but I could wish there were a perfect course of history for Græcia from Theseus to Philopœmen, (what time the affairs of Græcia were drowned and extinguished in the affairs of Rome;) and for Rome from Romulus to Justinianus, who may be truly said to be *ultimus Romanorum*. In which sequences of story the text of Thucydides and Xenophon in the one, and the text of Livius, Polybius, Sallustius, Cæsar, Appianus, Tacitus, Herodianus in the other, to be kept intire without any diminution at all, and only to be supplied and continued. But this is matter of magnificence, rather to be commended

than required: and we speak now of parts of learning supplemental, and not of supererogation.

Unworthiness of the histories of England and Scotland.

But for modern Histories, whereof there are some few very worthy, but the greater part beneath mediocrity, (leaving the care of foreign stories to foreign states, because I will not be *curiosus in aliena republica,)* I cannot fail to represent to your majesty the unworthiness of the history of England in the main continuance thereof, and the partiality and obliquity of that of Scotland in the latest and largest author that I have seen: supposing that it would be honour for your majesty, and a work very memorable, if this island of Great Britain, as it is now joined in monarchy for the ages to come, so were joined in one history for the times passed; after the manner of the sacred history, which draweth down the story of the ten tribes and of the two tribes, as twins, together. And if it shall seem that the greatness of this work may make it less exactly performed, there is an excellent period of a smaller compass of time, as to the story of England; that is to say, from

the uniting of the roses to the uniting of the kingdoms; a portion of time, wherein, to my understanding, there hath been the rarest varieties that in like number of successions of any hereditary monarchy hath been known: for it beginneth with the mixed adeption of a crown by arms and title; an entry by battle, an establishment by marriage; and therefore times answerable, like waters after a tempest, full of working and swelling, though without extremity of storm; but well passed through by the wisdom of the pilot, being one of the most sufficient kings of all the number. Then followeth the reign of a king, whose actions, howsoever conducted, had much intermixture with the affairs of Europe, balancing and inclining them variably; in whose time also began that great alteration in the state ecclesiastical, an action which seldom cometh upon the stage. Then the reign of a minor: then an offer of an usurpation, though it was but as *febris ephemera:* then the reign of a queen matched with a foreigner: then of a queen that lived solitary and unmarried, and yet her government so masculine

as it had greater impression and operation upon the states abroad than it any ways received from thence. And now last, this most happy and glorious event, that this island of Britain, divided from all the world, should be united in itself: and that oracle of rest, given to Æneas, *Antiquam exquirite matrem*, should now be performed and fulfilled upon the nations of England and Scotland, being now reunited in the ancient mother name of Britain, as a full period of all instability and peregrinations: so that as it cometh to pass in massive bodies, that they have certain trepidations and waverings before they fix and settle; so it seemeth that by the providence of God this monarchy, before it was to settle in your majesty and your generations, (in which, I hope, it is now established for ever,) it had these prelusive changes and varieties.

Of Lives.

For *Lives*, I do find strange that these times have so little esteemed the virtues of the times, as that the writing of lives should be no more frequent. For although there be not many sovereign princes or absolute commanders, and that states are most col-

lected into monarchies, yet there are many worthy personages that deserve better than dispersed report or barren eulogies. For herein the invention of one of the late poets is proper, and doth well enrich the ancient fiction: for he feigneth that at the end of the thread or web of every man's life there was a little medal containing the person's name, and that Time waited upon the shears; and as soon as the thread was cut, caught the medals, and carried them to the river of Lethe; and about the bank there were many birds flying up and down, that would get the medals and carry them in their beak a little while, and then let them fall into the river: only there were a few swans, which if they got a name, would carry it to a temple where it was consecrated.

And though many men, more mortal in their affections than in their bodies, do esteem desire of name and memory but as a vanity and ventosity,

Animi nil magnæ laudis egentes;

which opinion cometh from the root, *non prius laudes contempsimus, quam laudanda fa-*

cere desivimus; yet that will not alter Solomon's judgment, *Memoria justi cum laudibus, at impiorum nomen putrescet:* the one flourisheth, the other either consumeth to present oblivion, or turneth to an ill odour.

And therefore in that stile or addition, which is and hath been long well received and brought in use, *felicis memoriæ, piæ memoriæ, bonæ memoriæ,* we do acknowledge that which Cicero saith, borrowing it from Demosthenes, that *bona fama propria possessio defunctorum;* which possession I cannot but note that in our times it lieth much waste, and that therein there is a deficience.

Of Narrations.

For *Narrations* and *Relations* of particular actions, there were also to be wished a greater diligence therein; for there is no great action but hath some good pen which attends it.

And because it is an ability not common to write a good history, as may well appear by the small number of them; yet if particularity of actions memorable were but tolerably reported as they pass, the compiling of a complete history of times might be the better expected, when a writer should

arise that were fit for it: for the collection of such relations might be as a nursery garden, whereby to plant a fair and stately garden, when time should serve.

Annals and Journals.

There is yet another partition* of history which Cornelius Tacitus maketh, which is not to be forgotten, especially with that application which he accoupleth it withal, *Annals* and *Journals:* appropriating to the former matters of state, and to the latter acts and accidents of a meaner nature. For giving but a touch of certain magnificent buildings, he addeth, *Cum ex dignitate populi Romani repertum sit, res illustres annalibus, talia diurnis urbis actis mandare.* So as there is a kind of contemplative heraldry, as well as civil. And as nothing doth derogate from the dignity of a state more than confusion of degrees; so it doth not a little embase the authority of an history, to intermingle matters of triumph, or matters of ceremony, or matters of novelty, with matters of state. But the use of a journal hath not only been in the history of time, but likewise in the history of persons, and chiefly of actions; for princes in ancient time had, upon point

* portion. 1st Ed.

of honor and policy both, journals kept of what passed day by day: for we see the Chronicle which was read before Ahasuerus, when he could not take rest, contained matter of affairs indeed, but such as had passed in his own time, and very lately before: but the journal of Alexander's house expressed every small particularity, even concerning his person and court; and it is yet an use well received in enterprises memorable, as expeditions of war, navigations, and the like, to keep diaries of that which passeth continually.

Ruminated or philosophical history.

I cannot likewise be ignorant of a form of writing, which some grave and wise men have used, containing a scattered history of those actions which they have thought worthy of memory, with politic discourse and observation thereupon; not incorporated into the history, but separately, and as the more principal in their intention; which kind of ruminated history I think more fit to place amongst books of policy, whereof we shall hereafter speak, than amongst books of history: for it is the true office of history to represent the events themselves together with

the counsels, and to leave the observations and conclusions thereupon to the liberty and faculty of every man's judgment; but mixtures are things irregular, whereof no man can define.

History of Cosmography.

So also is there another kind of history manifoldly mixed, and that is History of Cosmography; being compounded of natural history, in respect of the regions themselves; of history civil, in respect of the habitations, regimens, and manners of the people; and the mathematics, in respect of the climates and configurations towards the heavens: which part of learning of all others, in this latter time, hath obtained most proficience. For it may be truly affirmed to the honour of these times, and in a virtuous emulation with antiquity, that this great building of the world had never thorough lights made in it, till the age of us and our fathers: for although they had knowledge of the antipodes,

Nosque ubi primus equis oriens afflavit anhelis,
Illic sera rubens accendit lumina Vesper:

yet that might be by demonstration, and not in fact; and if by travel, it requireth

the voyage but of half the globe. But to circle the earth, as the heavenly bodies do, was not done or enterprised till these latter times: and therefore these times may justly bear in their word, not only *plus ultra*, in precedence of the ancient *non ultra*, and *imitabile fulmen*, in precedence of the ancient *non imitabile fulmen*,

Demens qui nimbos et non imitabile fulmen, etc.

but likewise *imitabile cœlum;* in respect of the many memorable voyages, after the manner of heaven, about the globe of the earth.

And this proficience in navigation and discoveries may plant also an expectation of the farther proficience and augmentation of all sciences; because it may seem they are ordained by God to be coevals, that is, to meet one age. For so the prophet Daniel, speaking of the latter times, foretelleth, *Plurimi pertransibunt, et multiplex erit scientia;* as if the openness and thorough passage of the world and the increase of knowledge were appointed to be in the same ages, as we see it is already performed in great part; the learning of these latter times not much giving place to the former two periods or re-

turns of learning, the one of the Grecians, the other of the Romans.

4. Ecclesiastical History.

History ecclesiastical receiveth the same divisions with history civil: but farther, in the propriety thereof, may be divided into the History of the church, by a general name; History of prophecy; and History of providence.

History of the Church.

The first describeth the times of the *militant church*, whether it be fluctuant, as the ark of Noah; or moveable, as the ark in the wilderness; or at rest, as the ark in the temple; that is, the state of the church in persecution, in remove, and in peace. This part I ought in no sort to note as deficient, only I would that the virtue and sincerity of it were according to the mass and quantity. But I am not now in hand with censures, but with omissions.

History of Prophecy.

The second, which is history of *prophecy*, consisteth of two relatives, the prophecy, and the accomplishment; and therefore the nature of such a work ought to be, that every prophecy of the scripture be sorted with the event fulfilling the same, throughout the ages

of the world; both for the better confirmation of faith, and for the better illumination of the church touching those parts of prophecies which are yet unfulfilled: allowing nevertheless that latitude which is agreeable and familiar unto divine prophecies; being of the nature of their author, with whom a thousand years are but as one day; and therefore are not fulfilled punctually at once, but have springing and germinant accomplishment throughout many ages; though the height or fulness of them may refer to some one age.

This is a work which I find deficient; but is to be done with wisdom, sobriety, and reverence, or not at all.

History of Providence.

The third, which is history of *providence*, containeth that excellent correspondence which is between God's revealed will and his secret will: which though it be so obscure, as for the most part it is not legible to the natural man; no, nor many times to those who behold it from the tabernacle; yet at some times it pleaseth God, for our better establishment, and the confuting of

those which are as without God in the world, to write it in such text and capital letters, that as the prophet saith, *he that runneth by may read it;* that is, mere sensual persons, which hasten by God's judgments and never bend or fix their cogitations upon them, are nevertheless in their passage and race urged to discern it. Such are the notable events and examples of God's judgments, chastisements, deliverances, and blessings; and this is a work which hath passed through the labours of many, and therefore I cannot present as omitted.

Of the Appendices to History.

There are also other parts of learning which are Appendices to history: for all the exterior proceedings of man consist of words and deeds; whereof history doth properly receive and retain in memory the deeds; and if words, yet but as inducements and passages to deeds: so are there other books and writings, which are appropriated to the custody and receipt of words only; which likewise are of three sorts; Orations, Letters, and brief Speeches or Sayings.

Orations are pleadings, speeches of coun-

sel, laudatives, invectives, apologies, reprehensions, orations of formality or ceremony, and the like.

Letters are according to all the variety of occasions, advertisements, advices, directions, propositions, petitions, commendatory, expostulatory, satisfactory; of compliment, of pleasure, of discourse, and all other passages of action. And such as are written from wise men, are of all the words of man, in my judgment, the best; for they are more natural than orations and public speeches, and more advised than conferences or present speeches. So again letters of affairs from such as manage them, or are privy to them, are of all others the best instructions for history, and to a diligent reader the best histories in themselves.

For Apophthegms, it is a great loss of that book of Cæsar's; for as his history, and those few letters of his which we have, and those apophthegms which were of his own, excel all mens' else, so I suppose would his collection of apophthegms have done; for as for those which are collected by others, either I have no taste in such matters, or else their

choice hath not been happy. But upon these three kinds of writings I do not insist, because I have no deficiencies to propound concerning them.

Thus much therefore concerning history; which is that part of learning which answereth to one of the cells, domiciles, or offices of the mind of man; which is that of the memory.

POESY.

The nature of Poesy: it's two senses.

Poesy is a part of learning in measure of words for the most part restrained, but in all other points extremely licensed, and doth truly refer to the imagination; which, being not tied to the laws of matter, may at pleasure join that which nature hath severed, and sever that which nature hath joined; and so make unlawful matches and divorces of things; *Pictoribus atque poetis, etc.* It is taken in two senses, in respect of words, or matter; in the first sense it is but a character of stile, and belongeth to arts of speech, and is not pertinent for the present: in the

latter, it is, as hath been said, one of the principal portions of learning, and is nothing else but feigned history, which may be stiled as well in prose as in verse.

Use of Poesy.

The use of this feigned history hath been to give some shadow of satisfaction to the mind of man in those points wherein the nature of things doth deny it, the world being in proportion inferior to the soul; by reason whereof there is, agreeable to the spirit of man, a more ample greatness, a more exact goodness, and a more absolute variety, than can be found in the nature of things. Therefore, because the acts or events of true history have not that magnitude which satisfieth the mind of man, poesy feigneth acts and events greater and more heroical: because true history propoundeth the successes and issues of actions not so agreeable to the merits of virtue and vice, therefore poesy feigns them more just in retribution, and more according to revealed providence: because true history representeth actions and events more ordinary, and less interchanged, therefore poesy endueth them with more rareness, and more unexpected

and alternative variations: so as it appeareth that poesy serveth and conferreth to magnanimity, morality, and to delectation. And therefore it was ever thought to have some participation of divineness, because it doth raise and erect the mind, by submitting the shews of things to the desires of the mind; whereas reason doth buckle and bow the mind unto the nature of things.

And we see, that by these insinuations and congruities with man's nature and pleasure, joined also with the agreement and consort it hath with music, it hath had access and estimation in rude times and barbarous regions, where other learning stood excluded.

Poesy, narrative, representative, and allusive.

The division of poesy, which is aptest in the propriety thereof, (besides those divisions which are common unto it with history, as feigned chronicles, feigned lives, and the appendices of history, as feigned epistles, feigned orations, and the rest) is into Poesy Narrative, Representative, and Allusive.

The Narrative is a mere imitation of history, with the excesses before remembered; choosing for subject commonly wars and

love, rarely state, and sometimes pleasure or mirth.

Representative is as a visible history; and is an image of actions as if they were present, as history is of actions in nature as they are, that is past.

Allusive or parabolical is a narration applied only to express some special purpose or conceit: which latter kind of parabolical wisdom was much more in use in the ancient times, as by the fables of Æsop, and the brief sentences of the Seven, and the use of hieroglyphics, may appear. And the cause was, for that it was then of necessity to express any point of reason, which was more sharp or subtile than the vulgar, in that manner; because men in those times wanted both variety of examples and subtilty of conceit: and as hieroglyphics were before letters, so parables were before arguments. And nevertheless now, and at all times, they do retain much life and vigour; because reason cannot be so sensible, nor examples so fit.

But there remaineth yet another use of poesy parabolical, opposite to that which we last mentioned: for that tendeth to demon-

strate and illustrate that which is taught or delivered, and this other to retire and obscure it: that is, when the secrets and mysteries of religion, policy, or philosophy, are involved in fables and parables.

Exposition of certain fables.

Of this in divine poesy we see the use is authorised. In heathen poesy we see the exposition of fables doth fall out sometimes with great felicity; as in the fable that the giants being overthrown in their war against the gods, the Earth their mother in revenge thereof brought forth Fame:

Illam terra parens irâ irritata deorum,
Extremam, ut perhibent, Cœo Enceladoque
sororem Progenuit.

Expounded, that when Princes and monarchies have suppressed actual and open rebels, then the malignity of people, which is the mother of rebellion, doth bring forth libels and slanders, and taxations of the state, which is of the same kind with rebellion, but more feminine. So in the fable, that the rest of the gods having conspired to bind Jupiter, Pallas called Briareus with his hundred hands to his aid: expounded, that mo-

narchies need not fear any curbing of their absoluteness by mighty subjects, as long as by wisdom they keep the hearts of the people, who will be sure to come in on their side. So in the fable, that Achilles was brought up under Chiron the Centaur, who was part a man and part a beast; expounded ingeniously, but corruptly by Machiavel, that it belongeth to the education and discipline of princes to know as well how to play the part of the lion in violence, and the fox in guile, as of the man in virtue and justice.

Nevertheless, in many the like encounters, I do rather think that the fable was first, and the exposition devised, than that the moral was first, and thereupon the fable framed. For I find it was an ancient vanity in Chrysippus, that troubled himself with great contention to fasten the assertions of the Stoics upon fictions of the ancient poets; but yet that all the fables and fictions of the poets were but pleasure and not figure, I interpose no opinion.

Surely of those poets which are now extant, even Homer himself, notwithstanding

he was made a kind of Scripture by the latter schools of the Grecians, yet I should without any difficulty pronounce that his fables had no such inwardness in his own meaning; but what they might have upon a more original tradition, is not easy to affirm, for he was not the inventor of many of them.

In this third part of learning, which is poesy, I can report no deficience. For being as a plant that cometh of the lust of the earth, without a formal seed, it hath sprung up and spread abroad more than any other kind: but to ascribe unto it that which is due, for the expression of affections, passions, corruptions, and customs, we are beholden to poets more than to philosophers' works; and for wit and eloquence, not much less than to orators' harangues. But it is not good to stay too long in the theatre. Let us now pass to the judicial place or palace of the mind, which we are to approach and view with more reverence and attention.

PHILOSOPHY.

The knowledge of man is as the waters, some descending from above, and some

springing from beneath; the one informed by the light of nature, the other inspired by divine revelation.

The light of nature consisteth in the notions of the mind and the reports of the senses: for as for knowledge which man receiveth by teaching, it is cumulative and not original; as in a water that, besides his own spring-head, is fed with other springs and streams. So then, according to these two differing illuminations or originals, knowledge is first of all divided into Divinity and Philosophy.

Three enquiries in Philosophy.

In Philosophy, the contemplations of man do either penetrate unto God,—or are circumferred to nature,—or are reflected or reverted upon himself. Out of which several enquiries there do arise three knowledges, Divine philosophy, Natural philosophy, and Human philosophy or Humanity. For all things are marked and stamped with this triple character, of the power of God, the difference of nature, and the use of man.

Primitive or summary Philosophy.

But because the distributions and partitions of knowledge are not like several lines

that meet in one angle, and so touch but in a point; but are like branches of a tree, that meet in a stem, which hath a dimension and quantity of intireness and continuance, before it come to discontinue and break itself into arms and boughs; therefore it is good, before we enter into the former distribution, to erect and constitute one universal science, by the name of *Philosophia prima*, primitive or summary philosophy, as the main and common way, before we come where the ways part and divide themselves; which science whether I should report as deficient or no, I stand doubtful.

For I find a certain rhapsody of natural theology, and of divers parts of logic; and of that ~~other~~ part of natural philosophy which concerneth the principles; and of that other part of natural philosophy which concerneth the soul or spirit; all these strangely commixed and confused; but being examined, it seemeth to me rather a depredation of other sciences, advanced and exalted unto some height of terms, than any thing solid or substantial of itself.

Nevertheless I cannot be ignorant of the distinction which is current, that the same things are handled but in several respects. As for example, that logic considereth of many things as they are in notion; and this philosophy as they are in nature; the one in appearance, the other in existence: but I find this difference better made than pursued. For if they had considered quantity, similitude, diversity, and the rest of those external characters of things, as philosophers, and in nature, their inquiries must of force have been of a far other kind than they are.

For doth any of them, in handling quantity, speak of the force of union, how and how far it multiplieth virtue? Doth any give the reason, why some things in nature are so common, and in so great mass, and others so rare, and in so small quantity? Doth any, in handling similitude and diversity, assign the cause why iron should not move to iron, which is more like, but move to the loadstone which is less like? Why in all diversities of things there should be certain participles in nature, which are

almost ambiguous, to which kind they should be referred? But there is a mere and deep silence touching the nature and operation of those common adjuncts of things, as in nature; and only a resuming and repeating of the force and use of them in speech or argument.

Meaning of primitive Philosophy.

Therefore, because in a writing of this nature I avoid all subtilty, my meaning touching this original or universal philosophy is thus, in a plain and gross description by negative; "That it be a receptacle "for all such profitable observations and "axioms as fall not within the compass of "any of the special parts of philosophy or "sciences, but are more common and of "a higher stage."

Now that there are many of that kind, need not to be doubted. For example; is not the rule *Si inæqualibus æqualia addas, omnia erunt inæqualia,* an axiom as well of justice as of the mathematics? And is there not a true coincidence between commutative and distributive justice, and arithmetical and geometrical proportion? Is not that other rule *Quæ in eodem tertio conve-*

niunt, et inter se conveniunt a rule taken from the mathematics, but so potent in logic as all syllogisms are built upon it? Is not the observation *Omnia mutantur, nil interit* a contemplation, in philosophy thus, that the *quantum* of nature is eternal? in natural theology thus, that it requireth the same omnipotence to make something nothing, which at the first made nothing something; according to the scripture, *Didici quòd omnia opera, quæ fecit Deus, perseverent in perpetuum; non possumus eis quicquam addere nec auferre.*

Is not the ground, which Machiavel wisely and largely discourseth concerning governments, that the way to establish and preserve them, is to reduce them *ad principia*, a rule in religion and nature, as well as in civil administration? Was not the Persian magic a reduction or correspondence of the principles and architectures of nature to the rules and policy of governments? Is not the precept of a musician, to fall from a discord or harsh accord upon a concord or sweet accord, alike true in affection? Is not the trope of music, to avoid or slide from the close or cadence, common with the trope

of rhetoric, of deceiving expectation? Is not the delight of the quavering upon a stop in music, the same with the playing of light upon the water?

Splendet tremulo sub lumine pontus.

Are not the organs of the senses of one kind with the organs of reflection, the eye with a glass, the ear with a cave or strait determined and bounded? Neither are these only similitudes, as men of narrow observation may conceive them to be, but the same footsteps of nature, treading or printing upon several subjects or matters.

This science therefore, as I understand it, I may justly report as deficient; for I see sometimes the profounder sort of wits, in handling some particular argument, will now and then draw a bucket of water out of this well for their present use; but the spring-head thereof seemeth to me not to have been visited; being of so excellent use, both for the disclosing of nature, and the abridgement of art.

This science being therefore first placed as a common parent, like unto Berecynthia, which had so much heavenly issue, *Omnes*

cælicolas, omnes supera alta tenentes, we may return to the former distribution of the three philosophies, divine, natural, and human.

1. OF DIVINE PHILOSOPHY OR NATURAL THEOLOGY.

And as concerning Divine Philosophy or Natural Theology, it is that knowledge or rudiment of knowledge concerning God, which may be obtained by the contemplation of his creatures; which knowledge may be truly termed divine in respect of the object, and natural in respect of the light.

The bounds of this knowledge are, that it sufficeth to convince atheism, but not to inform religion: and therefore there was never miracle wrought by God to convert an atheist, because the light of nature might have led him to confess a God: but miracles have been wrought to convert idolaters and the superstitious, because no light of nature extendeth to declare the will and true worship of God.

For as all works do shew forth the power

and skill of the workman, and not his image; so it is of the works of God, which do shew the omnipotency and wisdom of the maker, but not his image: and therefore therein the heathen opinion differeth from the sacred truth; for they supposed the world to be the image of God, and man to be an extract or compendious image of the world; but the Scriptures never vouchsafe to attribute to the world that honor, as to be the image of God, but only the work of his hands; neither do they speak of any other image of God, but man: wherefore by the contemplation of nature to induce and inforce the acknowledgment of God, and to demonstrate his power, providence, and goodness, is an excellent argument, and hath been excellently handled by divers.

But on the other side, out of the contemplation of nature, or ground of human knowledges, to induce any verity or persuasion concerning the points of faith, is in my judgment not safe: *Da fidei quæ fidei sunt.* For the heathens themselves conclude as much in that excellent and divine fable of the golden chain; "That men and gods were not able

" to draw Jupiter down to the earth; but " contrariwise, Jupiter was able to draw " them up to heaven."

So as we ought not to attempt to draw down or submit the mysteries of God to our reason; but contrariwise, to raise and advance our reason to the divine truth. So as in this part of knowledge, touching divine philosophy, I am so far from noting any deficience, as I rather note an excess; whereunto I have digressed, because of the extreme prejudice which both religion and philosophy have received and may receive, by being commixed together; as that which undoubtedly will make an heretical religion, and an imaginary and fabulous philosophy.

Otherwise it is of the nature of angels and spirits, which is an appendix of theology, both divine and natural, and is neither inscrutable nor interdicted; for although the Scripture saith, *Let no man deceive you in sublime discourse touching the worship of angels, pressing into that he knoweth not,* &c. yet, notwithstanding, if you observe well that precept, it may appear thereby that there be two things only forbidden, adoration of them,

and opinion fantastical of them; either to extol them farther than appertaineth to the degree of a creature, or to extol a man's knowledge of them farther than he hath ground. But the sober and grounded inquiry, which may arise out of the passages of holy Scriptures, or out of the gradations of nature, is not restrained. So of degenerate and revolted spirits, the conversing with them or the employment of them is prohibited, much more any veneration towards them: but the contemplation or science of their nature, their power, their illusions, either by Scripture or reason, is a part of spiritual wisdom. For so the apostle saith, *We are not ignorant of his stratagems.* And it is no more unlawful to inquire the nature of evil spirits, than to inquire the force of poisons in nature, or the nature of sin and vice in morality. But this part touching angels and spirits, I cannot note as deficient, for many have occupied themselves in it; I may rather challenge it, in many of the writers thereof, as fabulous and fantastical.

2. OF NATURAL PHILOSOPHY.

Leaving therefore divine philosophy or natural theology (not divinity or inspired theology, which we reserve for the last of all, as the haven and sabbath of all man's contemplations) we will now proceed to Natural Philosophy.

If then it be true that Democritus said, "That the truth of nature lieth hid in cer- "tain deep mines and caves;" and if it be true likewise that the alchemists do so much inculcate, that Vulcan is a second nature, and imitateth that dexterously and compendiously, which nature worketh by ambages and length of time; it were good to divide natural philosophy into the mine and the furnace; and to make two professions or occupations of natural philosophers, some to be pioneers, and some smiths; some to dig, and some to refine and hammer: and surely I do best allow of a division of that kind, though in more familiar and scholastical terms; namely, that these be the two parts of na-

Speculative and operative.

tural philosophy,—the inquisition of causes, and the production of effects; speculative, and operative; natural science, and natural prudence.

For as in civil matters there is a wisdom of discourse, and a wisdom of direction; so is it in natural. And here I will make a request, that for the latter, or at least for a part thereof, I may revive and redintegrate the misapplied and abused name of Natural Magic; which, in the true sense, is but natural wisdom, or natural prudence; taken according to the ancient acceptation, purged from vanity and superstition.

Now although it be true, and I know it well, that there is an intercourse between causes and effects, so as both these knowledges, speculative and operative, have a great connection between themselves; yet because all true and fruitful natural philosophy hath a double scale or ladder, ascendent and descendent; ascending from experiments to the invention of causes, and descending from causes to the invention of new experiments; therefore I judge it most requisite that these

two parts be severally considered and handled.

1. Of Natural Science or Speculative Philosophy.

Natural Science or Theory is divided into Physic and Metaphysic: wherein I desire it may be conceived that I use the word metaphysic in a differing sense from that that is received: and in like manner, I doubt not but it will easily appear to men of judgment, that in this and other particulars, whereso-ever my conception and notion may differ from the ancient, yet I am studious to keep the ancient terms.

For hoping well to deliver myself from mistaking, by the order and perspicuous expressing of that I do propound; I am otherwise zealous and affectionate to recede as little from antiquity, either in terms or opinions, as may stand with truth and the proficience of knowledge.

Procedure of Aristotle.

And herein I cannot a little marvel at the philosopher Aristotle, that did proceed in such a spirit of difference and contradiction towards all antiquity; undertaking not only to frame new words of science at pleasure, but to confound and extinguish all ancient wisdom: insomuch as he never nameth or

mentioneth an ancient author or opinion, but to confute and reprove; wherein for glory, and drawing followers and disciples, he took the right course.

For certainly there cometh to pass, and hath place in human truth, that which was noted and pronounced in the highest truth; *Veni in nomine Patris, nec recipitis me; si quis venerit in nomine suo, eum recipietis.* But in this divine aphorism, (considering to whom it was applied, namely to Antichrist, the highest deceiver,) we may discern well that the coming in a man's own name, without regard of antiquity or paternity, is no good sign of truth, although it be joined with the fortune and success of an *Eum recipietis.*

But for this excellent person, Aristotle, I will think of him that he learned that humour of his scholar, with whom, it seemeth, he did emulate; the one to conquer all opinions, as the other to conquer all nations: wherein nevertheless, it may be, he may at some men's hands, that are of a bitter disposition, get a like title as his scholar did:

Felix terrarum prædo, non utile mundo
Editus exemplum, etc.

So,

Felix doctrinæ prædo.

But to me, on the other side, that do desire as much as lieth in my pen to ground a sociable intercourse between antiquity and proficience, it seemeth best to keep way with antiquity *usque ad aras;* and therefore to retain the antient terms, though I sometimes alter the uses and definitions: according to the moderate proceeding in civil government; where although there be some alteration, yet that holdeth which Tacitus wisely noteth, *eadem magistratuum vocabula.*

Meaning of Metaphysic.

To return therefore to the use and acceptation of the word Metaphysic, as I do now understand the word; it appeareth, by that which hath been already said, that I intend *philosophia prima,* Summary Philosophy, and Metaphysic, which heretofore have been confounded as one, to be two distinct things. For, the one I have made as a parent or common ancestor to all knowledge; and the other I have now brought in as a branch or descendent of natural science. It appeareth likewise that I have assigned to Summary Philosophy the common principles and

axioms which are promiscuous and indifferent to several sciences: I have assigned unto it likewise the inquiry touching the operation of the relative and adventitious characters of essences, as quantity, similitude, diversity, possibility, and the rest; with this distinction and provision; that they be handled as they have efficacy in nature, and not logically. It appeareth likewise, that Natural Theology, which heretofore hath been handled confusedly with Metaphysic, I have inclosed and bounded by itself.

Difference between Physic and Metaphysic.

It is therefore now a question what is left remaining for Metaphysic; wherein I may without prejudice preserve thus much of the conceit of antiquity, that *physic* should contemplate that which is inherent in matter, and therefore transitory; and *metaphysic* that which is abstracted and fixed.

And again, that *physic* should handle that which supposeth in nature only a being and moving; and *metaphysic* should handle that which supposeth farther in nature a reason understanding, and platform. But the difference, perspicuously expressed, is most familiar and sensible.

For as we divided natural philosophy in general into the inquiry of causes, and production of effects; so that part which concerneth the inquiry of causes we do subdivide according to the received and sound division of causes; the one part, which is *physic*, inquireth and handleth the material and efficient causes; and the other which is *metaphysic*, handleth the formal and final causes.

Physic, taking it according to the derivation, and not according to our idiom for medicine, is situate in a middle term or distance between natural history and metaphysic. For *natural history* describeth the variety of things; *physic* the causes, but variable or respective causes; and *metaphysic*, the fixed and constant causes.

Limus ut hic durescit, et hæc ut cera liquescit,
Uno eodemque igne.

Fire is the cause of induration, but respective to clay; fire is the cause of colliquation, but respective to wax: but fire is no constant cause either of induration or colliquation: so then the physical causes are but the efficient and the matter.

Three enquiries in Physic.

Physic hath three parts; whereof two respect nature united or collected, the third contemplateth nature diffused or distributed.

Nature is collected either into one entire total, or else into the same principles or seeds. So as the first doctrine is touching the contexture or configuration of things, as *de mundo, de universitate rerum.*

The second is the doctrine concerning the principles or originals of things.

The third is the doctrine concerning all variety and particularity of things; whether it be of the differing substances, or their differing qualities and natures; whereof there needeth no enumeration, this part being but as a gloss, or paraphrase, that attendeth upon the text of natural history.

Of these three I cannot report any as deficient. In what truth or perfection they are handled, I make not now any judgment: but they are parts of knowledge not deserted by the labour of man.

Two enquiries in Metaphysic.

For Metaphysic, we have assigned unto it the enquiry of formal and final causes; which assignation, as to the former of them, may seem to be nugatory and void; because

of the received and inveterate opinion, that the inquisition of man is not competent to find out essential forms or true differences: of which opinion we will take this hold, that the invention of forms is of all other parts of knowledge the worthiest to be sought, if it be possible to be found.

As for the possibility, they are ill discoverers that think there is no land, when they can see nothing but sea.

Error of Plato.

But it is manifest that Plato, in his opinion of ideas, as one that had a wit of elevation situate as upon a cliff, did descry, "That forms were the true object of knowledge;" but lost the real fruit of his opinion, by considering of forms as absolutely abstracted from matter, and not confined and determined by matter; and so turning his opinion upon theology, wherewith all his natural philosophy is infected.

Enquiry into formal causes.

But if any man shall keep a continual watchful and severe eye upon action, operation, and the use of knowledge, he may advise and take notice what are the forms, the disclosures whereof are fruitful and important to the state of man. For as to the forms

of substances, man only except, (of whom it is said, *Formavit hominem de limo terræ, et spiravit in faciem ejus spiraculum vitæ,* and not as of all other creatures, *Producant aquæ, producat terra,)* the forms of substances, I say, as they are now by compounding and transplanting multiplied, are so perplexed as they are not to be enquired; no more than it were either possible or to purpose to seek in gross the forms of those sounds which make words, which by composition and transposition of letters are infinite.

But, on the other side, to enquire the form of those sounds or voices which make simple letters is easily comprehensible; and being known, induceth and manifesteth the forms of all words, which consist and are compounded of them. In the same manner to enquire the form of a lion, of an oak, of gold; nay, of water, of air, is a vain pursuit: but to enquire the forms of sense, of voluntary motion, of vegetation, of colours, of gravity and levity, of density, of tenuity, of heat, of cold, and all other natures and qualities, which, like an alphabet, are not many, and of which the essences, upheld by

matter, of all creatures do consist; to inquire, I say, the true forms of these, is that part of *metaphysic* which we now define of.

Not but that *physic* doth make inquiry, and take consideration of the same natures: but how? Only as to the material and efficient causes of them, and not as to the forms. For example; if the cause of whiteness in snow or froth be inquired, and it be rendered thus, that the subtile intermixture of air and water is the cause, it is well rendered; but nevertheless, is this the form of whiteness? No; but it is the efficient, which is ever but *vehiculum formæ.*

This part of *metaphysic* I do not find laboured and performed; whereat I marvel not: because I hold it not possible to be invented by that course of invention which hath been used; in regard that men, which is the root of all error, have made too untimely a departure and too remote a recess from particulars.

Two uses of this part of Metaphysic.

But the use of this part of *metaphysic,* which I report as deficient, is of the rest the most excellent in two respects: the one, because it is the duty and virtue of all know-

ledge to abridge the infinity of individual experience, as much as the conception of truth will permit, and to remedy the complaint of *vita brevis, ars longa;* which is performed by uniting the notions and conceptions of sciences: for knowledges are as pyramids, whereof history is the basis. So of Natural Philosophy, the basis is *natural history;* the stage next the basis is *physic;* the stage next the vertical point is *metaphysic.* As for the vertical point, *Opus quod operatur Deus à principio usque ad finem,* the summary law of nature, we know not whether man's enquiry can attain unto it. But these three be true stages of knowledge, and are to them that are depraved no better than the giants' hills.

Ter sunt conati imponere Pelio Ossam,
Scilicet, atque Ossæ frondosum involvere
Olympum.

But to those which refer all things to the glory of God, they are as the three acclamations, *Sancte, sancte, sancte;* holy in the description or dilatation of his works; holy in the connection or concatenation of them;

and holy in the union of them in a perpetual and uniform law.

And therefore the speculation was excellent in Parmenides and Plato, although but a speculation in them, that all things by scale did ascend to unity. So then always that knowledge is worthiest, which is charged with least multiplicity; which appeareth to be Metaphysic; as that which considereth the simple forms or differences of things, which are few in number, and the degrees and co-ordinations whereof make all this variety.

The second respect, which valueth and commendeth this part of metaphysic, is that it doth enfranchise the power of man unto the greatest liberty and possibility of works and effects. For physic carrieth men in narrow and restrained ways, subject to many accidents of impediments, imitating the ordinary flexuous courses of nature; but *latæ undique sunt sapientibus viæ:* to sapience, which was anciently defined to be *rerum divinarum et humanarum scientia*, there is ever choice of means: for physical causes give

light to new invention *in simili materia*. But whosoever knoweth any form, knoweth the utmost possibility of super-inducing that nature upon any variety of matter; and so is less restrained in operation, either to the basis of the matter, or the condition of the efficient: which kind of knowledge Solomon likewise, though in a more divine sense, elegantly describeth; *Non arctabuntur gressus tui, et currens non habebis offendiculum.* The ways of sapience are not much liable either to particularity or chance.

Enquiry into final causes.

The second part of Metaphysic is the enquiry of final causes, which I am moved to report not as omitted, but as misplaced; and yet if it were but a fault in order, I would not speak of it: for order is matter of illustration, but pertaineth not to the substance of sciences. But this misplacing hath caused a deficience, or at least a great improficience in the sciences themselves. For the handling of final causes, mixed with the rest in physical enquiries, hath entercepted the severe and diligent enquiry of all real and physical causes, and given men

the occasion to stay upon these satisfactory and specious causes, to the great arrest and prejudice of farther discovery.

Error of Plato, Aristotle, &c.

For this I find done not only by Plato, who ever anchoreth upon that shore, but by Aristotle, Galen, and others, which do usually likewise fall upon these flats of discoursing causes. For to say that the hairs of the eyelids are for a quickset and fence about the sight; or that the firmness of the skins and hides of living creatures is to defend them from the extremities of heat or cold; or that the bones are for the columns or beams, whereupon the frame of the bodies of living creatures is built; or that the leaves of the trees are for protecting of the fruit; or that the clouds are for watering of the earth; or that the solidness of the earth is for the station and mansion of living creatures, and the like, is well enquired and collected in metaphysic; but in physic they are impertinent. Nay, they are indeed but remoras and hinderances to stay and slug the ship from farther sailing; and have brought this to pass, that the search of the physical causes hath been neglected, and passed in silence.

Better theory of Democritus, &c.

And therefore the natural philosophy of Democritus and some others, (who did not suppose a mind or reason in the frame of things, but attributed the form thereof, able to maintain itself, to infinite essays or proofs of nature, which they term fortune,) seemeth to me, as far as I can judge by the recital and fragments which remain unto us, in particularities of physical causes, more real and better inquired than that of Aristotle and Plato; whereof both intermingled final causes, the one as a part of theology, and the other as a part of logic, which were the favourite studies respectively of both those persons. Not because those final causes are not true, and worthy to be inquired, being kept within their own province; but because their excursions into the limits of physical causes hath bred a vastness and solitude in that track. For otherwise, keeping their precincts and borders, men are extremely deceived if they think there is an enmity or repugnancy at all between them. For the cause rendered, that the hairs about the eye-lids are for the safe-guard of the sight, doth not impugn the cause rendered,

Relation between final and physical causes.

that pilosity is incident to orifices of moisture; *Muscosi fontes, etc.* Nor the cause rendered, that the firmness of hides is for the armour of the body against extremities of heat and cold, doth not impugn the cause rendered, that contraction of pores is incident to the outwardest parts, in regard of their adjacence to foreign or unlike bodies; and so of the rest: both causes being true and compatible, the one declaring an intention, the other a consequence only.

Neither doth this call in question, or derogate from divine providence, but highly confirms and exalts it. For as in civil actions he is the greater and deeper politician, that can make other men the instruments of his will and ends, and yet never acquaint them with his purpose, so as they shall do it, and yet not know what they do, than he that imparteth his meaning to those he employeth; so is the wisdom of God more admirable, when nature intendeth one thing, and providence draweth forth another, than if he had communicated to particular creatures and motions the characters and impressions of his providence. And

thus much for metaphysic; the latter part whereof I allow as extant, but wish it confined to it's proper place.

Of Mathematic.

Nevertheless, there remaineth yet another part of natural philosophy, which is commonly made a principal part, and holdeth rank with physic special and metaphysic, which is *mathematic;* but I think it more agreeable to the nature of things, and to the light of order, to place it as a branch of metaphysic: for the subject of it being quantity, (not quantity indefinite, which is but a relative, and belongeth to *philosophia prima,* as hath been said, but quantity determined or proportionable,) it appeareth to be one of the essential forms of things; as that that is causative in nature of a number of effects; insomuch as we see, in the schools both of Democritus and of Pythagoras, that the one did ascribe *figure* to the first seeds of things, and the other did suppose *numbers* to be the principles and originals of things: and it is true also, that of all other forms, as we understand forms, it is the most abstracted and separable from matter, and therefore most proper to me-

taphysic; which hath likewise been the cause why it hath been better laboured and enquired than any of the other forms which are more immersed in matter.

For it being the nature of the mind of man, to the extreme prejudice of knowledge, to delight in the spacious liberty of generalities, as in a champain region, and not in the inclosures of particularity; the mathematics of all other knowledge were the goodliest fields to satisfy that appetite.

But for the placing of these sciences, it is not much material; only we have endeavoured, in these our partitions, to observe a kind of perspective, that one part may cast light upon another.

Mathematics pure and mixt.

The Mathematics are either pure or mixed. To the pure mathematics are those sciences belonging which handle quantity determinate, merely severed from any axioms of natural philosophy; and these are two, Geometry and Arithmetic; the one handling quantity continued, and the other dissevered.

Mixed hath for subject some axioms or parts of natural philosophy, and considereth

quantity determined, as it is auxiliary and incident unto them.

For many parts of nature can neither be invented with sufficient subtilty, nor demonstrated with sufficient perspicuity, nor accommodated unto use with sufficient dexterity, without the aid and intervening of the mathematics: of which sort are perspective, music, astronomy, cosmography, architecture, enginery, and divers others.

In the mathematics I can report no deficience, except it be that men do not sufficiently understand the excellent use of the pure mathematics, in that they do remedy and cure many defects in the wit and faculties intellectual. For, if the wit be too dull, they sharpen it; if too wandering, they fix it; if too inherent in the sense, they abstract it. So that as tennis is a game of no use in itself, but of great use in respect it maketh a quick eye and a body ready to put itself into all postures; so in the mathematics, that use which is collateral and intervenient is no less worthy than that which is principal and intended.

And as for the mixed mathematics, I may only make this prediction, that there cannot fail to be more kinds of them, as nature grows further disclosed.

Thus much of natural science, or the part of nature speculative.

2. Of Natural Prudences or Operative Philosophy.

For Natural Prudence, or the part operative of natural philosophy, we will divide it into three parts, *experimental, philosophical,* and *magical;* which three parts active have a correspondence and analogy with the three parts speculative, *natural history, physic,* and *metaphysic*: for many operations have been invented, sometimes by a casual incidence and occurrence, sometimes by a purposed experiment; and of those which have been found by an intentional experiment, some have been found out by varying or extending the same experiment, some by transferring and compounding divers experiments the one into the other, which kind of invention an empiric may manage.

Again, by the knowledge of physical causes there cannot fail to follow many indications and designations of new particulars, if men in their speculation will keep one eye

upon use and practice. But these are but coastings along the shore, *premendo littus iniquum:* for, it seemeth to me, there can hardly be discovered any radical or fundamental alterations and innovations in nature, either by the fortune and essays of experiments, or by the light and direction of physical causes.

Of Natural Magic.

If therefore we have reported metaphysic deficient, it must follow that we do the like of natural magic, which hath relation thereunto. For as for the natural magic whereof now there is mention in books, containing certain credulous and superstitious conceits and observations of sympathies, and antipathies, and hidden properties, and some frivolous experiments, strange rather by disguisement than in themselves, it is as far differing in truth of nature from such a knowledge as we require, as the story of king Arthur of Britain, or Hugh of Bourdeaux, differs from Cæsar's commentaries in truth of story. For it is manifest that Cæsar did greater things *de vero* than those imaginary heroes were feigned to do; but he did them not in that fabulous manner. Of this kind of learning the fable of Ixion was a figure, who

designed to enjoy Juno, the goddess of power; and instead of her had copulation with a cloud, of which mixture were begotten centaurs and chimeras.

So whosoever shall entertain high and vaporous imaginations, instead of a laborious and sober enquiry of truth, shall beget hopes and beliefs of strange and impossible shapes. And therefore we may note in these sciences which hold so much of imagination and belief, as this degenerate natural magic, alchemy, astrology, and the like, that in their propositions the description of the means is ever more monstrous than the pretence or end.

For it is a thing more probable, that he that knoweth well the natures of weight, of colour, of pliant and fragile in respect of the hammer, of volatile and fixed in respect of the fire, and the rest, may superinduce upon some metal the nature and form of gold by such mechanic as belongeth to the production of the natures afore rehearsed, than that some grains of the medicine projected should in a few moments of time turn a sea of quicksilver or other material into gold: so it is more probable, that he that knoweth the na-

ture of arefaction, the nature of assimilation of nourishment to the thing nourished, the manner of increase and clearing of spirits, the manner of the depredations which spirits make upon the humours and solid parts, shall by ambages of diets, bathings, anointings, medicines, motions, and the like, prolong life, or restore some degree of youth or vivacity, than that it can be done with the use of a few drops or scruples of a liquor or receipt. To conclude therefore, the true natural magic, which is that great liberty and latitude of operation which dependeth upon the knowledge of forms, I may report deficient, as the relative thereof is.

Use of a calendar of things known and things sought.

To which part, if we be serious, and incline not to vanities and plausible discourse, besides the deriving and deducing the operations themselves from metaphysic, there are pertinent two points of much purpose, the one by way of preparation, the other by way of caution: the first is, that there be made a calendar, resembling an inventory of the estate of man, containing all the inventions being the works or fruits of nature or art which are now extant, and whereof man is already possessed; out of which doth naturally

result a note, what things are yet held impossible or not invented: which calendar will be the more artificial and serviceable, if to every reputed impossibility you add what thing is extant which cometh the nearest in degree to that impossibility; to the end that by these optatives and potentials man's enquiry may be the more awake in deducing direction of works from the speculation of causes: and secondly, that those experiments be not only esteemed which have an immediate and present use, but those principally which are of most universal consequence for invention of other experiments, and those which give most light to the invention of causes; for the invention of the mariner's needle, which giveth the direction, is of no less benefit for navigation than the invention of the sails, which give the motion.

Thus have I passed through natural philosophy, and the deficiences thereof; wherein if I have differed from the ancient and received doctrines, and thereby shall move contradiction,—for my part, as I affect not to dissent, so I purpose not to contend. If it be truth, Conclusion.

Non canimus surdis, respondent omnia sylvæ: The voice of nature will consent, whether the voice of man do or no. And as Alexander Borgia was wont to say of the expedition of the French for Naples, that they came with chalk in their hands to mark up their lodgings, and not with weapons to fight: so I like better that entry of truth which cometh peaceably, with chalk to mark up those minds which are capable to lodge and harbour it, than that which cometh with pugnacity and contention.

Use of a Calendar of Doubts and Popular Errors.

But there remaineth a division of natural philosophy according to the report of the enquiry, and nothing concerning the matter or subject; and that is positive and considerative; when the enquiry reporteth either an assertion or a doubt. These doubts or *non liquets* are of two sorts, particular and total.

Of particular Doubts.

For the first, we see a good example thereof in Aristotle's *Problems*, which deserved to have had a better continuance; but so nevertheless, as there is one point whereof warning is to be given and taken. The registering of doubts hath two excellent uses: the one, that it saveth philosophy from errors and fals-

hoods, when that which is not fully appearing is not collected into assertion, whereby error might draw error, but reserved in doubt: the other, that the entry of doubts is as so many suckers or spunges to draw use of knowledge; insomuch, as that which, if doubts had not preceded, a man should never have advised, but passed it over without note, by the suggestion and solicitation of doubts is made to be attended and applied. But both these commodities do scarcely countervail an inconvenience which will intrude itself, if it be not debarred; which is that, when a doubt is once received, men labor rather how to keep it a doubt still, than how to solve it, and accordingly bend their wits. Of this we see the familiar example in lawyers and scholars, both which, if they have once admitted a doubt, it goeth ever after authorised for a doubt. But that use of wit and knowledge is to be allowed, which laboreth to make doubtful things certain and not those which labor to make certain things doubtful. Therefore these calendars of doubts I commend as excellent things; so that there be this caution used, that when they be thoroughly

sifted and brought to resolution, they be from thenceforth omitted, discarded, and not continued to cherish and encourage men in doubting. To which calendar of doubts or problems, I advise to be annexed another calendar, as much or more material, which is a calendar of popular errors; I mean chiefly in natural history, such as pass in speech and conceit, and are nevertheless apparently detected and convicted of untruth; that man's knowledge be not weakened nor imbased by such dross and vanity.

Of popular Errors.

Of total Doubts.

As for the doubts or *non liquets* general or in total, I understand those differences of opinions touching the principles of nature, and the fundamental points of the same, which have caused the diversity of sects, schools, and philosophies, as that of Empedocles, Pythagoras, Democritus, Parmenides, and the rest. For although Aristotle, as though he had been of the race of Ottomans, thought he could not reign, except the first thing he did he killed all his brethren; yet to those that seek truth and not magistrality, it cannot but seem a matter of great profit, to see before them the several opinions touching the

foundations of nature; not for any exact truth that can be expected in those theories; for as the same phænomena in astronomy are satisfied by the received astronomy of the diurnal motion, and the proper motions of the planets, with their eccentrics and epicyles, and likewise by the theory of Copernicus, who supposed the earth to move, and the calculations are indifferently agreeable to both; so the ordinary face and view of experience is many times satisfied by several theories and philosophies; whereas to find the real truth requireth another manner of severity and attention. For as Aristotle saith, that children at the first will call every woman mother, but afterward they come to distinguish according to truth; so experience, if it be in childhood, will call every philosophy mother, but when it cometh to ripeness, it will discern the true mother.

A collection of the Philosophies of the Antients severally desirable.

So as in the mean time it is good to see the several glosses and opinions upon nature, whereof it may be every one in some one point hath seen clearer than his fellows; therefore I wish some collection to be made painfully and understandingly *de antiquis*

philosophiis, out of all the possible light which remaineth to us of them: which kind of work I find deficient. But here I must give warning, that it be done distinctly and severally, the philosophies of every one throughout by themselves, and not by titles packed and faggotted up together, as hath been done by Plutarch. For it is the harmony of a philosophy in itself which giveth it light and credence; whereas if it be singled and broken, it will seem more foreign and dissonant. For as when I read in Tacitus the actions of Nero or Claudius, with circumstances of times, inducements and occasions, I find them not so strange; but when I read them in Suetonius Tranquillus, gathered into titles and bundles, and not in order of time, they seem more monstrous and incredible; so is it of any philosophy reported entire, and dismembered by articles. Neither do I exclude opinions of latter times to be likewise represented in this calendar of sects of philosophy, as that of Theophrastus Paracelsus, eloquently reduced into an harmony by the pen of Severinus the Dane; and that of Tilesius, and his scholar Donius being as

a pastoral philosophy, full of sense, but of no great depth; and that of Fracastorius, who though he pretended not to make any new philosophy, yet did use the absoluteness of his own sense upon the old; and that of Gilbertus our countryman, who revived, with some alterations and demonstrations, the opinions of Xenophanes; and any other worthy to be admitted.

Thus have we now dealt with two of the three beams of man's knowledge, that is *Radius directus,* which is referred to nature; *Radius refractus,* which is referred to God, and cannot report truly because of the inequality of the medium: there resteth *Radius reflexus,* whereby man beholdeth and contemplateth himself.

3. OF SELF-KNOWLEDGE, OR HUMANITY.

We come therefore now to that knowledge whereunto the ancient oracle directeth us, which is the knowledge of ourselves; which deserveth the more accurate handling, by how much it toucheth us more nearly. This knowledge, as it is the end and term of natural philosophy in the intention of man, so notwithstanding, it is but a portion of natural philosophy in the continent of nature: and generally let this be a rule, that all partitions of knowledges be accepted rather for lines and veins, than for sections and separations; and that the continuance and intireness of knowledge be preserved. For the contrary hereof hath made particular sciences to become barren, shallow, and erroneous, while they have not been nourished and maintained from the common fountain. So we see Cicero the orator complained of

Socrates and his school, that he was the first that separated philosophy and rhetoric; whereupon rhetoric became an empty and verbal art. So we may see that the opinion of Copernicus touching the rotation of the earth, which astronomy itself cannot correct, because it is not repugnant to any of the phænomena, yet natural philosophy may correct. So we see also that the science of medicine, if it be destitute and forsaken by natural philosophy, it is not much better than an empirical practice.

Its Divisions and Sub-divisions.

With this reservation therefore we proceed to Human Philosophy, or Humanity, which hath two parts: The one considereth man segregate or destributively; the other congregate or in society. So as human philosophy is either *simple* and *particular*, or *conjugate* and *civil*. Humanity particular consisteth, of the same parts whereof man consisteth that is of knowledges which respect the *body*, and of knowledges that respect the *mind;* but before we distribute so far, it is good to constitute. For I do take the consideration in general, and at large, of human nature to be fit to be emancipated

Of Human Nature generally.

and make a knowledge by itself; not so much in regard of those delightful and elegant discourses which have been made of the dignity of man, of his miseries, of his state and life, and the like adjuncts of his common and undivided nature; but chiefly in regard of the knowledge concerning the sympathies and concordances between the mind and body, which being mixed cannot be properly assigned to the sciences of either.

This knowledge hath two branches: for as all leagues and amities consist of mutual intelligence and mutual offices, so this league of mind and body hath these two parts; how the one discloseth the other, and how the one worketh upon the other; Discovery, and Impression.

1. Of Discovery.

The former of these hath begotten two arts, both of prediction or prenotion; whereof the one is honored with the enquiry of Aristotle, and the other of Hippocrates. And although they have of later time been used to be coupled with superstitious and fantastical arts, yet being purged and restored to their true state, they have both of

them a solid ground in nature, and a profitable use in life. The first is *physiognomy*, which discovereth the disposition of the mind by the lineaments of the body: the second is the *exposition of natural dreams*, which discovereth the state of the body by the imaginations of the mind. In the former of these I note a deficience; for Aristotle hath very ingeniously and diligently handled the features of the body, but not the gestures of the body, which are no less comprehensible by art, and of greater use and advantage. For the lineaments of the body do disclose the disposition and inclination of the mind in general; but the motions of the countenance and parts do not only so, but do farther disclose the present humor and state of the mind and will. For as your majesty saith most aptly and elegantly, "As the tongue "speaketh to the ear, so the gesture speaketh "to the eye." And therefore a number of subtle persons, whose eyes do dwell upon the faces and fashions of men, do well know the advantage of this observation, as being most part of their ability; neither can it be de-

nied, but that it is a great discovery of dissimulations, and a great direction in business.

2. Of Impression.

The latter branch touching impression, hath not been collected into art, but hath been handled dispersedly; and it hath the same relation or antistrophe that the former hath. For the consideration is double; "Either "how, and how far the humors and effects "of the body do alter or work upon the "mind; or again, How and how far the "passions or apprehensions of the mind do "alter or work upon the body." The former of these hath been enquired and considered as a part and appendix of medicine, but much more as a part of religion or superstition: for the physician prescribeth cures of the mind in frenzies and melancholy passions; and pretendeth also to exhibit medicines to exhilarate the mind, to confirm the courage, to clarify the wits, to corroborate the memory, and the like: but the scruples and superstitions of diet and other regimen of the body, in the sect of the Pythagoreans, in the heresy of the Manicheans, and in the law of Mahomet do exceed. So like-

wise the ordinances in the ceremonial law, interdicting the eating of the blood and fat, distinguishing between beasts clean and unclean for meat, are many and strict. Nay the faith itself, being clear and serene from all clouds of ceremony, yet retaineth the use of fastings, abstinences, and other macerations and humiliations of the body, as things real and not figurative. The root and life of all which prescripts is, besides the ceremony, the consideration of that dependency which the affections of the mind are submitted unto upon the state and disposition of the body. And if any man of weak judgment do conceive that this suffering of the mind from the body doth either question the immortality, or derogate from the sovereignty of the soul, he may be taught in easy instances, that the infant in the mother's womb is compatible with the mother, and yet separable; and the most absolute monarch is sometimes led by his servants, and yet without subjection. As for the reciprocal knowledge, which is the operation of the conceits and passions of the mind upon the body, we see all wise

physicians, in the prescriptions of their regimens to their patients, do ever consider *accidentia animi* as of great force to further or hinder remedies or recoveries; and more especially it is an enquiry of great depth and worth concerning imagination, how and how far it altereth the body proper of the imaginant. For although it hath a manifest power to hurt, it followeth not it hath the same degree of power to help; no more than a man can conclude, that because there be pestilent airs, able suddenly to kill a man in health, therefore there should be sovereign airs, able suddenly to cure a man in sickness. But the inquisition of this part is of great use, though it needeth, as Socrates said, "a Delian diver," being difficult and profound. But unto all this knowledge *de communi vinculo*, of the concordances between the mind and the body, that part of enquiry is most necessary, which considereth of the seats and domiciles which the several faculties of the mind do take and occupate in the organs of the body; which knowledge hath been attempted, and is controverted, and deserveth to be much

better enquired. For the opinion of Plato, who placed the understanding in the brain, animosity (which he did unfitly call anger, having a greater mixture with pride) in the heart, and concupiscence or sensuality in the liver, deserveth not to be despised, but much less to be allowed. So then we have constituted, as in our own wish and advice, the enquiry touching human nature entire, as a just portion of knowledge to be handled apart.

PHILOSOPHY OF THE BODY.

It's four parts.

The knowledge that concerneth man's Body is divided as the good of man's body is divided, unto which it referreth. The good of man's body is of four kinds, health, beauty, strength, and pleasure: So the knowledges are *medicine*, or art of cure; art of decoration, which is called *cosmetic;* art of activity, which is called *athletic;* and *art voluptuary*, which Tacitus truly calleth *eruditus luxus*. The subject of man's body is of all other things in nature most suscep-

tible of remedy; but then that remedy is most susceptible of error. For the same subtility of the subject doth cause large possibility and easy failing; and therefore the enquiry ought to be the more exact.

1. Medicine

To speak therefore of medicine, and to resume that we have said, ascending a little higher; the ancient opinion that man was *microcosmus*, an abstract or model of the world, hath been fantastically strained by Paracelsus and the alchemists, as if there were to be found in man's body certain correspondences and parallels, which should have respect to all varieties of things, as stars, planets, minerals, which are extant in the great world. But thus much is evidently true, that of all substances which nature hath produced, man's body is the most extremely compounded: For we see herbs and plants are nourished by earth and water; beasts for the most part by herbs and fruits; man by the flesh of beasts, birds, fishes, herbs, grains, fruits, water, and the manifold alterations, dressings, and preparations of these several bodies, before they come to be his food and aliment. Add hereunto, that beasts have a

more simple order of life, and less change of affections to work upon their bodies: whereas man in his mansion, sleep, exercise, passions, hath infinite variations; and it cannot be denied but that the body of man of all other things is of the most compounded mass. The soul on the other side is the simplest of substances, as is well expressed:

Purumque reliquit
Æthereum sensum atque auraï simplicis ignem.

So that it is no marvel though the soul so placed enjoy no rest, if that principle be true, that *Motus rerum est rapidus extra locum, placidus in loco.* But to the purpose: this variable composition of man's body hath made it as an instrument easy to distemper; and therefore the poets did well to conjoin music and medicine in Apollo; because the office of medicine is but to tune this curious harp of man's body, and to reduce it to harmony.

An art particularly conjectural and fit for imposture.

So then the subject being so variable hath made the art by consequence more conjectural; and the art being conjectural hath made so much the more place to be

left for imposture. For almost all other arts and sciences are judged by acts or masterpieces, as I may term them, and not by the successes and events. The lawyer is judged by the virtue of his pleading, and not by the issue of the cause. The master of the ship is judged by the directing his course aright, and not by the fortune of the voyage. But the physician, and perhaps the politician, hath no particular acts demonstrative of his ability, but is judged most by the event; which is ever but as it is taken: for who can tell, if a patient die or recover, or if a state be preserved or ruined, whether it be art or accident? And therefore many times the impostor is prized, and the man of virtue taxed. Nay, we see the weakness and credulity of men is such, as they will often prefer a mountebank or witch before a learned physician. And therefore the poets were clear-sighted in discerning this extreme folly, when they made Æsculapius and Circe brother and sister, both children of the sun, as in the verses; Æn. vii. 772.

Ipse repertorem medicinæ talis et artis
Fulmine Phœbigenam Stygias detrusit ad undas:

And again,

Dives inaccessos ubi Solis filia lucos, etc. Æn. vii. 11. For in all times, in the opinion of the multitude, witches and old women and impostors have had a competition with physicians. And what followeth? Even this; that physicians say to themselves, as Solomon expresseth it upon an higher occasion; *If it befal to me as befalleth to the fools, why should I labour to be more wise?* And therefore I cannot much blame physicians, that they use commonly to intend some other art or practice, which they fancy more than their profession. For you shall have of them, antiquaries, poets, humanists, statesmen, merchants, divines, and in every of these better seen than in their profession; and no doubt, upon this ground, that they find that mediocrity and excellency in their art maketh no difference in profit or reputation towards their fortune; for the weakness of patients, and sweetness of life, and

Physicians usually cultivate some other art.

nature of hope, maketh men depend upon physicians with all their defects.

Causes of it's uncertainty.

But, nevertheless, these things, which we have spoken of, are courses begotten between a little occasion, and a great deal of sloth and default; for if we will excite and awake our observation, we shall see in familiar instances what a predominant faculty the subtilty of spirit hath over the variety of matter or form: nothing more variable than faces and countenances, yet men can bear in memory the infinite distinctions of them; nay, a painter with a few shells of colours, and the benefit of his eye, and habit of his imagination, can imitate them all that ever have been, are, or may be, if they were brought before him. Nothing more variable than voices, yet men can likewise discern them personally; nay, you shall have a buffoon, or *pantomimus*, will express as many as he pleaseth. Nothing more variable than the differing sounds of words, yet men have found the way to reduce them to a few simple letters. So that it is not the insufficiency or incapacity of man's mind, but it is the remote standing or placing thereof

that breedeth these mazes and incomprehensions: for as the sense afar off is full of mistaking, but is exact at hand, so it is of the understanding; the remedy whereof is not to quicken or strengthen the organ, but to go nearer to the object; and therefore there is no doubt but if the physicians will learn and use the true approaches and avenues of nature, they may assume as much as the poet saith:

Et quoniam variant morbi, variabimus artes;
Mille mali species, mille salutis erunt.

Which that they should do, the nobleness of their art doth deserve; well shadowed by the poets, in that they made Æsculapius to be the son of the Sun, the one being the fountain of life, the other as the second stream: but infinitely more honoured by the example of our Saviour, who made the body of man the object of his miracles, as the soul was the object of his doctrine; for we read not that ever he vouchsafed to do any miracle about honor or money, except that one for giving tribute to Cæsar, but only about the preserving, sustaining, and healing the body of man.

Deficiencies in medicine.

Medicine is a science which hath been, as we have said, more professed than laboured, and yet more laboured than advanced; the labour having been, in my judgment, rather in circle than in progression. For I find much iteration, but small addition. It considereth the causes of diseases, with the occasions or impulsions; the diseases themselves, with the accidents; and the cures, with the preservations. The deficiences which I think good to note, being a few of many, and those such as are of a more open and manifest nature, I will enumerate and not place.

In a narrative of special cases.

The first is the discontinuance of the ancient and serious diligence of Hippocrates, who used to set down a narrative of the special cases of his patients, and how they proceeded, and how they were judged by recovery or death. Therefore having an example proper in the father of the art, I shall not need to allege an example foreign, of the wisdom of the lawyers, who are careful to report new cases and decisions for the direction of future judgments. This continuance of Medicinal History I

find deficient; which I understand neither to be so infinite as to extend to every common case, nor so reserved as to admit none but wonders; for many things are new in the manner which are not new in the kind; and if men will intend to observe, they shall find much worthy to observe.

In the enquiries of anatomy.

In the enquiry which is made by anatomy I find much deficience: for they enquire of the parts, and their substances, figures, and collocations; but they enquire not of the diversities of the parts, the secrecies of the passages, and the seats or the nestling of the humours, nor much of the footsteps and impressions of diseases: the reason of which omission I suppose to be, because the first enquiry may be satisfied in the view of one or a few anatomies; but the latter being comparative and casual must arise from the view of many. And as to the diversity of parts, there is no doubt but the facture or framing of the inward parts is as full of difference as the outward, and in that is the cause continent of many diseases; which not being observed, they quarrel many times with the humours, which are not in fault;

the fault being in the very frame and mechanic of the part, which cannot be moved by medicine alterative, but must be accommodated and palliated by diets and medicines familiar. And for the passages and pores, it is true which was anciently noted, that the more subtile of them appear not in anatomies, because they are shut and latent in dead bodies, though they be open and manifest in live: which being supposed, though the inhumanity of *anatomia vivorum* was by Celsus justly reproved, yet in regard of the great use of this observation, the enquiry needed not by him so slightly to have been relinquished altogether, or referred to the casual practices of surgery; but might have been well diverted upon the dissection of beasts alive, which, notwithstanding the dissimilitude of their parts, may sufficiently satisfy this enquiry. And for the humours, they are commonly passed over in anatomies as purgaments; whereas it is most necessary to observe, what cavities, nests, and receptacles the humours do find in the parts, with the differing kind of the humour so lodged and received. And as for the foot-

steps of diseases, and their devastations of the inward parts, imposthumations, exulcerations, discontinuations, putrefactions, consumptions, contractions, extensions, convulsions, dislocations, obstructions, repletions, together with all præternatural substances, as stones, carnosities, excrescences, worms, and the like; they ought to have been exactly observed by multitude of anatomies, and the contribution of men's several experiences, and carefully set down, both historically, according to the appearances, and artificially, with a reference to the diseases and symptoms which resulted from them, in case where the anatomy is of a defunct patient; whereas now upon opening of bodies, they are passed over slightly and in silence.

In the despair of cures.

In the enquiry of diseases they do abandon the cures of many, some as in their nature incurable, and others as past the period of cure; so that Sylla and the triumvirs never proscribed so many men to die, as they do by their ignorant edicts; whereof numbers do escape with less difficulty than they did in the Roman proscriptions. There-

fore I will not doubt to note as a deficience, that they enquire not the perfect cures of many diseases, or extremities of diseases; but pronouncing them incurable, do enact a law of neglect, and exempt ignorance from discredit.

Of the office of a Physician.

Nay farther, I esteem it the office of a physician not only to restore health, but to mitigate pain and dolors; and not only when such mitigation may conduce to recovery, but when it may serve to make a fair and easy passage: for it is no small felicity which Augustus Cæsar was wont to wish to himself, that same *euthanasia*, and which was specially noted in the death of Antoninus Pius, whose death was after the fashion and semblance of a kindly and pleasant sleep. So it is written of Epicurus, that after his disease was judged desperate, he drowned his stomach and senses with a large draught and ingurgitation of wine; whereupon the epigram was made, *Hinc Stygias ebrius hausit aquas*; he was not sober enough to taste any bitterness of the Stygian water. But the physicians, contrariwise, do make a kind of scruple and re-

ligion to stay with the patient after the disease is deplored; whereas, in my judgment, they ought both to enquire the skill, and to give the attendances for the facilitating and assuaging of the pains and agonies of death.

Tradition of particular cures deficient.

In the consideration of the cures of diseases, I find a deficience in the receipts of propriety, respecting the particular cures of diseases: for the physicians have frustrated the fruit of tradition and experience by their magistralities, in adding, and taking out, and changing *quid pro quo* in their receipts, at their pleasures; commanding so over the medicine, as the medicine cannot command over the disease: for except it be treacle and mithridatum, and of late diascordium, and a few more, they tie themselves to no receipts severely and religiously: for as to the confections of sale which are in the shops, they are for readiness and not for propriety; for they are upon general intentions of purging, opening, comforting, altering, and not much appropriated to particular diseases: and this is the cause why empirics and old women are more

happy many times in their cures than learned physicians, because they are more religious in holding their medicines. Therefore here is the deficience which I find, that physicians have not, partly out of their own practice, partly out of their constant probations reported in books, and partly out of the traditions of empirics, set down and delivered over certain experimental medicines for the cure of particular diseases, besides their own conjectural and magisterial descriptions. For as they were the men of the best composition in the state of Rome, which either being consuls inclined to the people, or being tribunes inclined to the senate; so in the matter we now handle, they be the best physicians, which being learned incline to the traditions of experience, or being empirics incline to the methods of learning.

Of artificial mineral baths.

In preparation of medicines, I do find strange, especially considering how mineral medicines have been extolled, and that they are safer for the outward than inward parts, that no man hath sought to make an imitation by art of natural baths and medicinable

fountains; which nevertheless are confessed to receive their virtues from minerals; and not so only, but discerned and distinguished from what particular mineral they receive tincture, as sulphur, vitriol, steel, or the like; which nature, if it may be reduced to compositions of art, both the variety of them will be increased, and the temper of them will be more commanded.

Prescriptions too compendious.

But lest I grow to be more particular than is agreeable either to my intention or to proportion, I will conclude this part with the note of one deficience more, which seemeth to me of greatest consequence; which is, that the prescripts in use are too compendious to attain their end: for to my understanding, it is a vain and flattering opinion to think any medicine can be so sovereign or so happy, as that the receipt or use of it can work any great effect upon the body of man. It were a strange speech, which spoken, or spoken oft, should reclaim a man from a vice to which he were by nature subject: it is order, pursuit, sequence, and interchange of application, which is mighty in nature; which although it require more exact knowledge in

prescribing, and more precise obedience in observing, yet is recompensed with the magnitude of effects. And although a man would think by the daily visitations of the physicians, that there were a pursuance in the cure; yet let a man look into their prescripts and ministrations, and he shall find them but inconstancies and every day's devices, without any settled providence or project; not that every scrupulous or superstitious prescript is effectual, no more than every straight way is the way to heaven; but the truth of the direction must precede severity of observance.

2. Cosmetic.

For Cosmetic, it hath parts civil, and parts effeminate: for cleanness of body was ever esteemed to proceed from a due reverence to God, to society, and to ourselves. As for artificial decoration, it is well worthy of the deficiencies which it hath; being neither fine enough to deceive, nor handsome to use, nor wholesome to please.

3. Athletic.

For Athletic, I take the subject of it largely, that is to say, for any point of ability, whereunto the body of man may be brought, whether it be of activity, or of patience;

whereof activity hath two parts, strength and swiftness; and patience likewise hath two parts, hardness against wants and extremities, and indurance of pain or torment; whereof we see the practices in tumblers, in savages, and in those that suffer punishment: nay, if there be any other faculty which falls not within any of the former divisions, as in those that dive, that obtain a strange power of containing respiration, and the like, I refer it to this part. Of these things the practices are known, but the philosophy that concerneth them is not much enquired; the rather, I think, because they are supposed to be obtained, either by an aptness of nature, which cannot be taught, or only by continual custom, which is soon prescribed; which though it be not true, yet I forbear to note any deficiencies; for the Olympian games are down long since, and the mediocrity of these things is for use; as for the excellency of them, it serveth for the most part for mercenary ostentation.

4. Sensuality.

For arts of Pleasure sensual, the chief deficience in them is of laws to repress them. For as it hath been well observed, that the

arts which flourish in times while virtue is in growth, are military; and while virtue is in state, are liberal; and while virtue is in declination, are voluptuary; so I doubt that this age of the world is somewhat upon the descent of the wheel. With arts voluptuary I couple practices joculary; for the deceiving of the senses is one of the pleasures of the senses. As for games of recreation, I hold them to belong to civil life and education. And thus much of that particular human philosophy which concerns the body, which is but the tabernacle of the mind.

PHILOSOPHY OF THE MIND.

For Human Knowledge which concerns the Mind, it hath two parts; the one that enquireth of the substance or nature of the soul or mind, the other that enquireth of the faculties or functions thereof.

1. Of the Nature of the Soul or Mind.

Unto the first of these, the considerations of the original of the soul, whether it be native or adventive, and how far it is exempted from

laws of matter, and of the immortality thereof, and many other points, do appertain; which have been not more laboriously enquired than variously reported; so as the travel therein taken seemeth to have been rather in a maze than in a way. But although I am of opinion that this knowledge may be more really and soundly enquired even in nature than it hath been; yet I hold that in the end it must be bounded by religion, or else it will be subject to deceit and delusion: for as the substance of the soul in the creation was not extracted out of the mass of heaven and earth by the benediction of a *producat*, but was immediately inspired from God; so it is not possible that it should be, otherwise than by accident, subject to the laws of heaven and earth, which are the subject of philosophy; and therefore the true knowledge of the nature and state of the soul must come by the same inspiration that gave the substance. Unto this part of knowledge touching the soul there be two appendixes; which, as they have been handled, have rather vapoured forth fables than kindled truth; *divination* and *fascination*.

Two kinds of Divination.

Divination hath been anciently and fitly divided into artificial and natural; whereof artificial is when the mind maketh a prediction by argument, concluding upon signs and tokens; natural is when the mind hath a presention by an internal power, without the inducement of a sign. Artificial is of two sorts; either when the argument is coupled with a derivation of causes, which is rational; or when it is only grounded upon a coincidence of the effect, which is experimental; whereof the latter for the most part is superstitious: such as were the heathen observations upon the inspection of sacrifices, the flights of birds, the swarming of bees, and such as were the Chaldean astrology, and the like. For artificial divination, the several kinds thereof are distributed amongst particular knowledges. The astronomer hath his predictions, as of conjunctions, aspects, eclipses, and the like. The physician hath his predictions of death, of recovery, of the accidents and issues of diseases. The politician hath his predictions; *O urbem venalem, et cito perituram, si emptorem invenerit!* which stayed not long to be

performed in Sylla first, and after in Cæsar; so as these predictions are now impertinent, and to be referred over. But the divination which springeth from the internal nature of the soul, is that which we now speak of, which hath been made to be of two sorts, primitive and by influxion. Primitive is grounded upon the supposition that the mind, when it is withdrawn and collected into itself, and not diffused into the organs of the body, hath some extent and latitude of prenotion; which therefore appeareth most in sleep, in extasies, and near death, and more rarely in waking apprehensions; and is induced and furthered by those abstinences and observances which make the mind most to consist in itself: by influxion, is grounded upon the conceit that the mind, as a mirror or glass, should take illumination, from the foreknowledge of God and spirits; unto which the same regimen doth likewise conduce. For the retiring of the mind within itself is the state which is most susceptible of divine influxions; save that it is accompanied in this case with a fervency and elevation which the ancients noted by fury,

and not with a repose and quiet, as it is in the other.

Fascination is the power and act of imagination intensive upon other bodies than the body of the imaginant; for of that we spake in the proper place; wherein the school of Paracelsus, and the disciples of pretended natural magic, have been so intemperate, as that they have exalted the power of the imagination to be much one with the power of miracle-working faith; others, that draw nearer to probability, calling to their view the secret passages of things, and especially of the contagion that passeth from body to body, do conceive it should likewise be agreeable to nature, that there should be some transmissions and operations from spirit to spirit, without the mediation of the senses: whence the conceits have grown, now almost made civil, of the mastering spirit, and the force of confidence, and the like. Incident unto this is the enquiry how to raise and fortify the imagination: for if the imagination fortified have power, then it is material to know how to fortify and exalt it. And herein comes in crookedly and dangerously a pal- Of Fascination.

liation of a great part of ceremonial magic. For it may be pretended that ceremonies, characters, and charms, do work not by any tacit or sacramental contract with evil spirits, but serve only to strengthen the imagination of him that useth it; as images are said by the Roman church to fix the cogitations, and raise the devotions of them that pray before them. But for mine own judgment, if it be admitted that imagination hath power, and that ceremonies fortify imagination, and that they be used sincerely and intentionally for that purpose; yet I should hold them unlawful, as opposing to that first edict which God gave unto man, *In sudore vultus comedes panem tuum.* For they propound those noble effects, which God hath set forth unto man to be bought at the price of labour, to be attained by a few easy and slothful observances. Deficiencies in these knowledges I will report none other than the general deficience, that it is not known how much of them is verity, and how much vanity.

2. Of the faculties of the soul or mind.

The knowledge which respecteth the faculties of the mind of man is of two kinds; the one respecting his understanding and reason,

the other his will, appetite, and affection; whereof the former produceth position or decree, the latter action or execution. It is true that the imagination is an agent or *nuncius* in both provinces, both the judicial and the ministerial. For sense sendeth over to imagination before reason have judged, and reason sendeth over to imagination before the decree can be acted: for imagination ever precedeth voluntary motion, saving that this Janus of imagination hath differing faces; for the face towards reason hath the print of truth, but the face towards action hath the print of good; which nevertheless are faces,

Quales decet esse sororum.

Neither is the imagination simply and only a messenger, but is invested with, or at leastwise usurpeth no small authority in itself, besides the duty of the message. For it was well said by Aristotle, "That the mind hath "over the body that commandment, which "the lord hath over a bondman; but that "reason hath over the imagination that com-"mandment which a magistrate hath over a "free citizen;" who may come also to rule in his turn. For we see that in matters of

faith and religion we raise our imagination above our reason; which is the cause why religion sought ever access to the mind by similitudes, types, parables, visions, dreams. And again, in all persuasions that are wrought by eloquence, and other impressions of like nature, which do paint and disguise the true appearance of things, the chief recommendation unto reason is from the imagination. Nevertheless, because I find not any science that doth properly or fitly pertain to the imagination, I see no cause to alter the former division. For as for poesy, it is rather a pleasure, or play of imagination, than a work of duty thereof: and if it be a work, we speak not now of such parts of learning as the imagination produceth, but of such sciences as handle and consider of the imagination; no more than we shall speak now of such knowledges as reason produceth, for that extendeth to all philosophy, but of such knowledges as do handle and enquire of the faculty of reason; so as poesy had its true place. As for the power of the imagination in nature, and the manner of fortifying the same, we have men-

tioned it in the doctrine *De anima,* whereunto most fitly it belongeth: and lastly, for imaginative or insinuative reason, which is the subject of rhetoric, we think it best to refer it to the arts of reason. So therefore we content ourselves with the former division, that Human Philosophy, which respecteth the faculties of the mind of man, hath two parts, Rational and Moral.

RATIONAL PHILOSOPHY.

The part of Human Philosophy which is Rational is of all knowledges, to the most wits, the least delightful, and seemeth but a net of subtilty and spinosity: for as it was truly said, that knowledge is *pabulum animi;* so in the nature of men's appetite to this food, most men are of the taste and stomach of the Israelites in the desert, that would fain have returned *ad ollas carnium,* and were weary of manna; which though it were celestial, yet seemed less nutritive and comfortable. So generally men taste well knowledges that are drenched in flesh and blood,

civil history, morality, policy, about the which men's affections, praises, fortunes, do turn and are conversant; but this same *lumen siccum* doth parch and offend most men's watery and soft natures. But to speak truly of things as they are in worth, *rational knowledges* are the keys of all other arts; for as Aristotle saith aptly and elegantly, "That "the hand is the instrument of instruments, "and the mind is the form of forms;" so these be truly said to be the art of arts: neither do they only direct, but likewise confirm and strengthen; even as the habit of shooting doth not only enable to shoot a nearer shoot, but also to draw a stronger bow.

Four intellectual arts.

The arts intellectual are four in number; divided according to the ends whereunto they are referred; for man's labour is to invent that which is sought or propounded; or to judge that which is invented; or to retain that which is judged; or to deliver over that which is retained. So as the arts must be four; art of *enquiry or invention;* art of *examination or judgment;* art of *custody or memory;* and art of *elocution or tradition.*

1. Art of Enquiry or invention.

Invention is of two kinds, much differing; the one of arts and sciences; and the other of speech and arguments. The former of these I do report deficient; which seemeth to me to be such a deficience as if, in the making of an inventory touching the state of a defunct, it should be set down, That there is no ready money. For as money will fetch all other commodities, so this knowledge is that which should purchase all the rest. And like as the West-Indies had never been discovered, if the use of the mariner's needle had not been first discovered, though the one be vast regions, and the other a small motion; so it cannot be found strange, if sciences be no farther discovered, if the art itself of invention and discovery hath been passed over.

That this part of knowledge is wanting, to my judgment standeth plainly confessed: for first, logic doth not pretend to invent sciences, or the axioms of sciences, but passeth it over with a *cuique in sua arte credendum*. And Celsus acknowledgeth it gravely, speaking of the empirical and dogmatical sects of physicians, "That medicines and cures were

" first found out, and then after the reasons " and causes were discoursed; and not the " causes first found out, and by light from " them the medicines and cures discovered." And Plato, in his *Theætetus*, noteth well, " That particulars are infinite, and the high- " er generalities give no sufficient direction; " and that the pith of all sciences, which " maketh the artsman differ from the inex- " pert, is in the middle propositions, which " in every particular knowledge are taken " from tradition and experience." And therefore we see that they, which discourse of the inventions and originals of things, refer them rather to chance than to art, and rather to beasts, birds, fishes, serpents, than to men.

Dictamnum genetrix Cretæa carpit ab Ida,
Puberibus caulem foliis, et flore comantem
Purpureo: non illa feris incognita capris
Gramina, cum tergo volucres hæsere sagittæ.

So that it was no marvel, the manner of antiquity being to consecrate inventors, that the Ægyptians had so few human idols in their temples, but almost all brute.

Omnigenumque Deum monstra, et latrator Anubis,
Contra Neptunum, et Venerem, contraque Minervam, etc.

And if you like better the tradition of the Grecians, and ascribe the first inventions to men, yet you will rather believe that Prometheus first struck the flints, and marvelled at the spark, than that when he first struck the flints he expected the spark; and therefore we see the West-Indian Prometheus had no intelligence with the European, because of the rareness with them of flint, that gave the first occasion: so as it should seem, that hitherto men are rather beholden to a wild goat for surgery, or to a nightingale for music, or to the ibis for some part of physic, or to the potlid that flew open for artillery, or generally to chance, or any thing else than to logic, for the invention of arts and sciences. Neither is the form of invention which Virgil describeth much other;

Ut varias usus meditando extunderet artes
Paulatim.

For if you observe the words well, it is no

other method than that which brute beasts are capable of, and do put in use; which is a perpetual intending or practising some one thing, urged and imposed by an absolute necessity of conservation of being: for so Cicero saith very truly, *Usus uni rei deditus et naturam et artem sæpe vincit.* And therefore if it be said of men,

Labor omnia vincit
Improbus, et duris urgens in rebus egestas;

it is likewise said of beasts, *Quis psittaco docuit suum* χαῖρε: Who taught the raven in a drought to throw pebbles into an hollow tree, where she espied water, that the water might rise so as she might come to it? Who taught the bee to sail through such a vast sea of air, and to find the way from a field in flower, a great way off, to her hive? Who taught the ant to bite every grain of corn that she burieth in her hill, lest it should take root and grow? Add then the word *extundere,* which importeth the extreme difficulty, and the word *paulatim,* which importeth the extreme slowness, and we are where we were, even amongst the Ægyptians' gods; there being

little left to the faculty of reason, and nothing to the duty of art, for matter of invention.

The induction of Plato and the Logicians incompetent.

Secondly, the induction which the logicians speak of, and which seemeth familiar with Plato, (whereby the principles of sciences may be pretended to be invented, and so the middle propositions by derivation from the principles,) their form of induction, I say, is utterly vicious and incompetent; wherein their error is the fouler, because it is the duty of art to perfect and exalt nature; but they contrariwise have wronged, abused, and traduced nature. For he that shall attentively observe how the mind doth gather this excellent dew of knowledge, like unto that which the poet speaketh of, *Aërei mellis cœlestia dona*, distilling and contriving it out of particulars natural and artificial, as the flowers of the field and garden, shall find that the mind of herself by nature doth manage and act an induction much better than they describe it. For to conclude upon an enumeration of particulars, without instance contradictory, is no conclusion, but a conjecture; for who can assure, in many subjects, upon those parti-

culars which appear of a side, that there are not on the contrary side which appear not. As if Samuel should have rested upon those sons of Jesse which were brought before him, and failed of David which was in the field. And this form, to say truth, is so gross, as it had not been possible for wits so subtile as have managed these things to have offered it to the world, but that they hasted to their theories and dogmaticals, and were imperious and scornful toward particulars; which their manner was to use but as *lictores* and *viatores*, for serjeants and whifflers, *ad summovendam turbam*, to make way and make room for their opinions, rather than in their true use and service. Certainly it is a thing may touch a man with a religious wonder to see how the footsteps of seducement are the very same in divine and human truth: for as in divine truth man cannot endure to become as a child; so in human, they reputed the attending the inductions whereof we speak, as if it were a second infancy or childhood.

Nature cannot be examined by the forms of Syllogism.

Thirdly, allow some principles or axioms were rightly induced, yet nevertheless certain it is that middle propositions cannot be de-

duced from them in subject of nature by syllogism, that is by touch and reduction of them to principles in a middle term. It is true that in sciences popular, as moralities, laws, and the like, yea and divinity (because it pleaseth God to apply himself to the capacity of the simplest) that form may have use; and in natural philosophy likewise, by way of argument or satisfactory reason, *Quæ assensum parit, operis effœta est;* but the subtilty of nature and operations will not be inchained in those bonds: for arguments consist of propositions, and propositions of words; and words are but the current tokens or marks o popular notions of things; which notions, if they be grossly and variably collected out of particulars, it is not the laborious examination either of consequences of arguments, or of the truth of propositions, that can ever correct that error, being, as the physicians speak, in the first digestion: and therefore it was not without cause, that so many excellent philosophers became sceptics and academics, and denied any certainty of knowledge or comprehension; and held opinion, that the knowledge of man extended only to appear-

ances and probabilities. It is true that in Socrates it was supposed to be but a form of irony, *Scientiam dissimulando simulavit;* for he used to disable his knowledge, to the end to enhance his knowledge; like the humour of Tiberius in his beginnings, that would reign, but would not acknowledge so much: and in the later academy, which Cicero embraced, this opinion also of *acatalepsia,* I doubt, was not held sincerely: for that all those which excelled in *copia* of speech seem to have chosen that sect, as that which was fittest to give glory to their eloquence and variable discourses; being rather like progresses of pleasure, than journeys to an end.

Error of the Sceptics and Academics.

But assuredly many scattered in both academies did hold it in subtilty and integrity: but here was their chief error; they charged the deceit upon the senses; which in my judgment, notwithstanding all their cavillations, are very sufficient to certify and report truth, though not always immediately, yet by comparison, by help of instrument, and by producing and urging such things as are too subtile for the sense to some effect comprehensible by the sense; and other like as-

sistance. But they ought to have charged the deceit upon the weakness of the intellectual powers, and upon the manner of collecting and concluding upon the reports of the senses. This I speak not to disable the mind of man, but to stir it up to seek help: for no man, be he never so cunning or practised, can make a straight line or perfect circle by steadiness of hand, which may be easily done by help of a ruler or compass.

This part of invention, concerning the invention of sciences, I purpose, if God give me leave, hereafter to propound, having digested it into two parts; whereof the one I term *experientia literata*, and the other, *interpretatio naturæ*: the former being but a degree and rudiment of the latter. But I will not dwell too long, nor speak too much upon a promise.

Of invention of Speech or Argument.

The invention of speech or argument is not properly an invention; for to invent is to discover that we know not; and not to recover or resummon that which we already know: and the use of this invention is no

other but, out of the knowledge whereof our mind is already possessed, to draw forth or call before us that which may be pertinent to the purpose which we take into our consideration. So as, to speak truly, it is no invention, but a remembrance or suggestion, with an application; which is the cause why the schools do place it after judgment, as subsequent and not precedent. Nevertheless, because we do account a chace, as well of deer in an inclosed park, as in a forest at large, and that it hath already obtained the name, let it be called invention; so as it be perceived and discerned that the scope and end of this invention is readiness and present use of our knowledge, and not addition or amplification thereof.

Of preparation.

To procure this ready use of knowledge there are two courses, preparation and suggestion. The former of these seemeth scarcely a part of knowledge, consisting rather of diligence than of any artificial erudition. And herein Aristotle wittily, but hurtfully, doth deride the sophists near his time, saying, "They did as if one that professed the "art of shoe-making should not teach how to

" make up a shoe, but only exhibit in a " readiness a number of shoes of all fashions " and sizes." But yet a man might reply, that if a shoe-maker should have no shoes in his shop, but only work as he is bespoken, he should be weakly customed. But our Saviour speaking of divine knowledge, saith, *that the kingdom of heaven is like a good housholder, that bringeth forth new and old store:* and we see the ancient writers of rhetoric do give it in precept, that pleaders should have the places, whereof they have most continual use, ready handled in all the variety that may be; as that, to speak for the literal interpretation of the law against equity, and contrary; and to speak for presumptions and inferences against testimony, and contrary. And Cicero himself, being broken unto it by great experience delivereth it plainly; that whatsoever a man shall have occasion to speak of, if he will take the pains, he may have it in effect premeditate, and handled *in thesi:* so that when he cometh to a particular, he shall have nothing to do, but to add names, and times, and places, and such other circum-

stances of individuals. We see likewise the exact diligence of Demosthenes; who, in regard of the great force that the entrance and access into causes hath to make a good impression, had ready framed a number of prefaces for orations and speeches. All which authorities and precedents may overweigh Aristotle's opinion, that would have us change a rich wardrobe for a pair of shears.

But the nature of the collection of this provision or preparatory store, though it be common both to logic and rhetoric, yet having made an entry of it here, where it came first to be spoken of, I think fit to refer over the farther handling of it to rhetoric.

Of suggestion.

The other part of invention, which I term suggestion, doth assign and direct us to certain marks or places, which may excite our mind to return and produce such knowledge as it hath formerly collected, to the end we may make use thereof. Neither is this use, truly taken, only to furnish argument to dispute probably with others, but likewise to minister unto our judgment to conclude aright within ourselves. Neither may these places serve only to prompt our invention,

but also to direct our enquiry. For a faculty of wise interrogating is half a knowledge. For as Plato saith, "Whosoever seeketh, "knoweth that which he seeketh for in a "general notion, else how shall he know it "when he hath found it?" And therefore the larger your anticipation is, the more direct and compendious is your search. But the same places which will help us what to produce of that which we know already, will also help us, if a man of experience were before us, what questions to ask: or, if we have books and authors to instruct us, what points to search and resolve: so as I cannot report that this part of invention, which is that which the schools call topics, is deficient.

Of Topics, general and special.

Nevertheless topics are of two sorts, general and special. The general we have spoken to, but the particular hath been touched by some, but rejected generally as inartificial and variable. But leaving the humour which hath reigned too much in the schools, which is to be vainly subtile in a few things which are within their command, and to reject the rest, I do receive particular topics, (that is, places or directions of invention and enquiry

in every particular knowledge) as things of great use, being mixtures of logic with the matter of sciences: for in these it holdeth, *Ars inveniendi adolescit cum inventis;* for as in going of a way, we do not only gain that part of the way which is passed, but we gain the better sight of that part of the way which remaineth, so every degree of proceeding in a science giveth a light to that which followeth; which light if we strengthen, by drawing it forth into questions or places of enquiry, we do greatly advance our pursuit.

2. Art of examination or judgment.

Now we pass unto the arts of judgment, which handle the natures of proofs and demonstrations; which as to induction hath a coincidence with invention: for in all inductions, whether in good or vicious form, the same action of the mind which inventeth, judgeth; all one as in the sense: but otherwise it is in proof by syllogism; for the proof being not immediate, but by mean, the invention of the mean is one thing, and the judgment of the consequence is another; the one exciting only, the other examining. Therefore, for the real and exact form of

judgment, we refer ourselves to that which we have spoken of interpretation of nature.

Of Syllogism.

For the other judgment by syllogism, as it is a thing most agreeable to the mind of man, so it hath been vehemently and excellently laboured; for the nature of man doth extremely covet to have somewhat in his understanding fixed and immoveable, and as a rest and support of the mind. And therefore as Aristotle endeavoureth to prove, that in all motion there is some point quiescent; and as he elegantly expoundeth the ancient fable of Atlas, that stood fixed, and bore up the heaven from falling, to be meant of the poles or axle-tree of heaven, whereupon the conversion is accomplished; so assuredly men have a desire to have an Atlas or axle-tree within, to keep them from fluctuation, which is like to a perpetual peril of falling; therefore men did hasten to set down some principles about which the variety of their disputations might turn.

So then this art of judgment is but the reduction of propositions to principles in a middle term. The principles to be agreed by all, and exempted from argument; the mid-

dle term to be elected at the liberty of every man's invention; the reduction to be of two kinds, direct and inverted; the one when the proposition is reduced to the principle, which they term a probation ostensive; the other when the contradictory of the proposition is reduced to the contradictory of the principle, which is that which they call *per incommodum,* or pressing an absurdity; the number of middle terms to be as the proposition standeth degrees more or less removed from the principle.

It's two methods of Doctrine.

But this art hath two several methods of doctrine, the one by way of direction, the other by way of caution: the former frameth and setteth down a true form of consequence, by the variations and deflections from which errors and inconsequences may be exactly judged: toward the composition and structure of which form it is incident to handle the parts thereof, which are propositions, and the parts of propositions, which are simple words; and this is that part of logic which is comprehended in the analytics.

The second method of doctrine was introduced for expedite use and assurance sake;

discovering the more subtile forms of sophisms and illaqueations with their redargutions, which is that which is termed elenches. For although in the more gross sorts of fallacies it happeneth, as Seneca maketh the comparison well, as in juggling feats, which though we know not how they are done, yet we know well it is not as it seemeth to be; yet the more subtile sort of them doth not only put a man besides his answer, but doth many times abuse his judgment.

The doctrine of Elenches well handled by Aristotle and Plato.

This part concerning Elenches is excellently handled by Aristotle in precept, but more excellently by Plato in example, not only in the persons of the sophists, but even in Socrates himself; who professing to affirm nothing, but to infirm that which was affirmed by another, hath exactly expressed all the forms of objection, fallacy, and redargution. And although we have said that the use of this doctrine is for redargution; yet it is manifest, the degenerate and corrupt use is for caption and contradiction, which passeth for a great faculty, and no doubt is of very great advantage; though the difference be good which was made between orators and

sophisters, that the one is as the greyhound, which hath his advantage in the race, and the other as the hare, which hath her advantage in the turn, so as it is the advantage of the weaker creature.

Extent of this doctrine.

But yet farther, this doctrine of Elenches hath a more ample latitude and extent than is perceived; namely, unto divers parts of knowledge; whereof some are laboured and others omitted. For I first conceive, though it may seem at first somewhat strange, that that part which is variably referred, sometimes to logic, sometimes to metaphysic, touching the common adjuncts of essences, is but an Elench; for the great sophism of all sophisms being equivocation or ambiguity of words and phrase (especially of such words as are most general, and intervene in every enquiry) it seemeth to me that the true and fruitful uses, leaving vain subtilties and speculations, of the enquiry of majority, minority, priority, posteriority, identity, diversity, possibility, act, totality, parts, existence, privation, and the like, are but wise cautions against ambiguities of speech. So again, the distribution of things into certain

tribes, which we call categories, or predicaments, are but cautions against the confusion of definitions and divisions.

Secondly, there is a seducement that worketh by the strength of the impression, and not by the subtilty of the illaqueation; not so much perplexing the reason, as overruling it by power of the imagination. But this part I think more proper to handle when I shall speak of rhetoric.

Fallacies founded on the general nature of the mind.

But lastly, there is yet a much more important and profound kind of fallacies in the mind of man, which I find not observed or enquired at all, and think good to place here, as that which of all others appertaineth most to rectify judgment: the force whereof is such, as it doth not dazzle or snare the understanding in some particulars, but doth more generally and inwardly infect and corrupt the state thereof. For the mind of man is far from the nature of a clear and equal glass, wherein the beams of things should reflect according to their true incidence; nay, it is rather like an inchanted glass, full of superstition and imposture, if it be not deliver-

ed and reduced. For this purpose, let us consider the false appearances that are imposed upon us by the general nature of the mind, beholding them in an example or two; as first in that instance which is the root of all superstition, namely, that to the nature of the mind of all men it is consonant for the affirmative or active to affect more than the negative or privative: so that a few times hitting, or presence, countervails oft-times failing, or absence; as was well answered by Diagoras to him that shewed him in Neptune's temple the great number of pictures of such as had escaped shipwreck, and had paid their vows to Neptune, saying, "Advise now, you that think "it folly to invocate Neptune in tempest:" "Yea, but, saith Diagoras, where are they "painted that are drowned?" Let us behold it in another instance, namely, "That "the spirit of man, being of an equal and "uniform substance, doth usually suppose "and feign in nature a greater equality "and uniformity than is in truth." Hence it cometh that the mathematicians cannot satisfy themselves, except they reduce the

motions of the celestial bodies to perfect circles, rejecting spiral lines, and labouring to be discharged of eccentrics. Hence it cometh, that whereas there are many things in nature, as it were *monodica, sui juris;* yet the cogitations of man do feign unto them relatives, parallels, and conjugates, whereas no such thing is; as they have feigned an element of fire to keep square with earth, water, and air, and the like; nay, it is not credible, till it be opened, what a number of fictions and fancies the similitude of human actions and arts, together with the making of man *communis mensura,* have brought into natural philosophy; not much better than the heresy of the Anthropomorphites, bred in the cells of gross and solitary monks, and the opinion of Epicurus, answerable to the same in heathenism, who supposed the gods to be of human shape. And therefore Velleius the Epicurean needed not to have asked, why God should have adorned the heavens with stars; as if he had been an Ædilis, one that should have set forth some magnificent shews or plays. For if that great work-master had been of

an human disposition, he would have cast the stars into some pleasant and beautiful works and orders, like the frets in the roofs of houses; whereas one can scarce find a posture in square, or triangle, or straight line, amongst such an infinite number; so differing an harmony there is between the spirit of man and the spirit of nature.

Fallacies of individual nature.

Let us consider again the false appearances imposed upon us by every man's own individual nature and custom, in that feigned supposition that Plato maketh of the cave; for certainly if a child were continued in a grot or cave under the earth until maturity of age, and came suddenly abroad, he would have strange and absurd imaginations. So in like manner, although our persons live in the view of heaven, yet our spirits are included in the caves of our own complexions and customs, which minister unto us infinite errors and vain opinions, if they be not recalled to examination. But hereof we have given many examples in one of the errors or peccant humors which we ran briefly over in our first book.

Fallacies imposed by words.

And lastly, let us consider the false appearances that are imposed upon us by words, which are framed and applied according to the conceit and capacities of the vulgar sort; and although we think we govern our words, and prescribe it well, *Loquendum ut vulgus, sentiendum ut sapientes;* yet certain it is that words, as a Tartar's bow, do shoot back upon the understanding of the wisest, and mightily entangle and pervert the judgment; so as it is almost necessary in all controversies and disputations to imitate the wisdom of the mathematicians, in setting down in the very beginning the definitions of our words and terms, that others may know how we accept and understand them, and whether they concur with us or no. For it cometh to pass, for want of this, that we are sure to end there where we ought to have begun, which is in questions and differences about words. To conclude therefore, it must be confessed that it is not possible to divorce ourselves from these fallacies and false appearances, because they are inseparable from our nature and condition of life; so yet

nevertheless the caution of them, (for all elenches, as was said, are but cautions,) doth extremely import the true conduct of human judgment. The particular elenches or cautions against these three false appearances I find altogether deficient.

Four kinds of demonstration.

There remaineth one part of judgment of great excellency, which to mine understanding is so slightly touched as I may report that also deficient; which is the application of the differing kinds of proofs to the differing kinds of subjects: for there being but four kinds of demonstrations, that is by the *immediate consent* of the mind or sense, by *induction*, by *syllogism*, and by *congruity* (which is that which Aristotle calleth demonstration in orb or circle, and not *à notioribus*,) every of these hath certain subjects in the matter of sciences, in which respectively they have chiefest use; and certain others, from which respectively they ought to be excluded: and the rigour and curiosity in requiring the more severe proofs in some things, and chiefly the facility in contenting ourselves with the more remiss proofs in others, hath been amongst the

greatest causes of detriment and hindrance to knowledge. The distributions and assignations of demonstrations, according to the analogy of sciences, I note as deficient.

3. Art of custody or memory.

The custody or retaining of knowledge is either in writing or memory; whereof writing hath two parts, the nature of the character, and the order of the entry: for the art of characters, or other visible notes of words or things, it hath nearest conjugation with grammar; and therefore I refer it to the due place: for the disposition and collocation of that knowledge which we preserve in writing, it consisteth in a good digest of common-places, wherein I am not ignorant of the prejudice imputed to the use of common-place books, as causing a retardation of reading, and some sloth or relaxation of memory. But because it is but a counterfeit thing in knowledges to be forward and pregnant, except a man be deep and full, I hold the entry of common-places to be a matter of great use and essence in studying, as that which assureth *copia* of invention, and contracteth judgment to strength. But this is true, that of the me-

thods of common-places that I have seen, there is none of any sufficient worth; all of them carrying merely the face of a school, and not of a world; and referring to vulgar matters and pedantical divisions, without all life, or respect to action.

Of the faculty of memory.

For the other principal part of the custody of knowledge, which is memory, I find that faculty in my judgment weakly enquired of. An art there is extant of it; but it seemeth to me that there are better precepts than that art, and better practices of that art than those received. It is certain the art, as it is, may be raised to points of ostentation prodigious: but in use, as it is now managed, it is barren, (not burdensome, nor dangerous to natural memory, as is imagined, but barren,) that is not dexterous to be applied to the serious use of business and occasions. And therefore I make no more estimation of repeating a great number of names or words upon once hearing, or the pouring forth of a number of verses or rhimes *ex tempore*, or the making of a satirical simile of every thing, or the turning of every thing to a jest, or the fal-

sifying or contradicting of every thing by cavil, or the like, (whereof in the faculties of the mind there is great *copia*, and such as by device and practice may be exalted to an extreme degree of wonder,) than I do of the tricks of tumblers, funambuloes, baladines; the one being the same in the mind that the other is in the body; matters of strangeness without worthiness.

This art of memory is but built upon two intentions; the one prenotion, the other emblem. *Prenotion* dischargeth the indefinite seeking of that we would remember, and directeth us to seek in a narrow compass, that is, somewhat that hath congruity with our place of memory. *Emblem* reduceth conceits intellectual to images sensible, which strike the memory more; out of which axioms may be drawn much more practical than that in use; and besides which axioms, there are divers more touching help of memory, not inferior to them. But I did in the beginning distinguish, not to report those things deficient which are but only ill managed.

better practice

There remaineth the fourth kind of rational knowledge, which is transitive; con- 4. Art of Elocution or Tradition.

cerning the expressing or transferring our knowledge to others, which I will term by the general name of tradition or delivery. Tradition hath three parts: the first concerning the organ of tradition; the second concerning the method of tradition; and the third concerning the illustration of tradition.

Of the organ of Tradition.

For the organ of tradition, it is either speech or writing: for Aristotle saith well, "Words are the images of cogitations, and "letters are the images of words;" but yet it is not of necessity that cogitations be expressed by the medium of words. For whatsoever is capable of sufficient differences, and those perceptible by the sense, is in nature competent to express cogitations. And therefore we see in the commerce of barbarous people, that understand not one another's language, and in the practice of divers that are dumb and deaf, that men's minds are expressed in gestures, though not exactly, yet to serve the turn. And we understand farther that it is the use of China, and the kingdoms of the high Levant, to write in characters real, which express neither letters nor words in gross, but things or notions; insomuch as countries and

provinces, which understand not one another's language, can nevertheless read one another's writings, because the characters are accepted more generally than the languages do extend; and therefore they have a vast multitude of characters, as many, I suppose, as radical words.

Two kinds of notes of our Thoughts.

These notes of cogitations are of two sorts; the one when the note hath some similitude or congruity with the notion; the other *ad placitum*, having force only by contract or acceptation. Of the former sort are *hieroglyphics* and *gestures*. For as to hieroglyphics, things of ancient use, and embraced chiefly by the Ægyptians, one of the most ancient nations, they are but as continued impresses and emblems. And as for gestures, they are as transitory hieroglyphics, and are to hieroglyphics as words spoken are to words written, in that they abide not: but they have evermore, as well as the other, an affinity with the things signified; as Periander, being consulted with how to preserve a tyranny newly usurped, bid the messenger attend and report what he saw him do; and went into his garden and topped all his highest flowers: signifying, that it con-

sisted in the cutting off and keeping low of the nobility and grandees. *Ad placitum* are the *characters real* before mentioned, and *words*: although some have been willing by curious inquiry, or rather by apt feigning, to have derived imposition of names from reason and intendment; a speculation elegant, and by reason it searcheth into antiquity, reverent; but sparingly mixed with truth, and of small fruit. This portion of knowledge, touching the notes of things, and cogitations in general, I find not enquired but deficient. And although it may seem of no great use, considering that words and writings by letters do far excel all the other ways; yet because this part concerneth, as it were, the mint of knowledge, (for words are the tokens current and accepted for conceits, as moneys are for values, and that it is fit men be not ignorant that moneys may be of another kind than gold and silver,) I thought good to propound it to better enquiry.

Of Speech and Words.

Concerning speech and words, the consideration of them hath produced the science of Grammar; for man still striveth to reintegrate himself in those benedictions, from which by his fault he hath been deprived;

and as he hath striven against the first general curse by the invention of all other arts, so hath he sought to come forth of the second general curse, which was the confusion of tongues, by the art of grammar: whereof the use in a mother tongue is small, in a foreign tongue more; but most in such foreign tongues as have ceased to be vulgar tongues, and are turned only to learned tongues. The duty of it is of two natures; the one popular, which is for the speedy and perfect attaining languages, as well for intercourse of speech as for understanding of authors; the other philosophical, examining the power and nature of words, as they are the footsteps and prints of reason: which kind of analogy between words and reason is handled *sparsim*, brokenly, though not intirely; and therefore I cannot report it deficient; though I think it very worthy to be reduced into a science by itself.

Unto grammar also belongeth, as an appendix, the consideration of the accidents of words; which are measure, sound, and elevation or accent, and the sweetness and harshness of them; whence hath issued some cu-

rious observations in rhetoric, but chiefly poesy, as we consider it, in respect of the verse, and not of the argument: wherein though men in learned tongues do tie themselves to the ancient measures, yet in modern languages it seemeth to me as free to make new measures of verses as of dances; for a dance is a measured pace, as a verse is a measured speech. In these things the sense is better judge than the art;

Cœnæ fercula nostræ
Mallem convivis quàm placuisse cocis.

And of the servile expressing antiquity in an unlike and an unfit subject, it is well said, *Quod tempore antiquum videtur, id incongruitate est maxime novum.*

Of Ciphers. For ciphers, they are commonly in letters or alphabets, but may be in words. The kinds of ciphers, besides the simple ciphers, with changes, and intermixtures of nulls and non-significants, are many, according to the nature or rule of the infolding; wheel-ciphers, key-ciphers, doubles, *etc.* But the virtues of them, whereby they are to be preferred, are three; that they be not laborious to write and read; that they be impossible to

decipher; and in some cases, that they be without suspicion. The highest degree whereof is to write *omnia per omnia*; which is undoubtedly possible with a proportion quincuple at most of the writing infolding to the writing infolded, and no other restraint whatsoever. This art of ciphering, hath for relative an art of deciphering, by supposition unprofitable, but as things are, of great use. For suppose that ciphers were well managed, there be multitudes of them which exclude the decipherer. But in regard of the rawness and unskilfulness of the hands through which they pass, the greatest matters are many times carried in the weakest ciphers.

In the enumeration of these private and retired arts, it may be thought I seek to make a great muster-roll of sciences, naming them for shew and ostentation, and to little other purpose. But let those which are skilful in them judge whether I bring them in only for appearance, or whether in that which I speak of them, though in few words, there be not some seed of proficience. And this must be remembered, that as there be many of great account in their countries and pro-

vinces, which when they come up to the seat of the estate, are but of mean rank, and scarcely regarded; so these arts, being here placed with the principal and supreme sciences, seem petty things; yet to such as have chosen them to spend their labours and studies in them, they seem great matters.

Of the method of Tradition.

For the method of tradition, I see it hath moved a controversy in our time. But as in civil business, if there be a meeting, and men fall at words, there is commonly an end of the matter for that time, and no proceeding at all; so in learning, where there is much controversy, there is many times little inquiry. For this part of knowledge of method seemeth to me so weakly enquired as I shall report it deficient.

Method hath been placed, and that not amiss, in logic, as a part of judgment; for as the doctrine of syllogisms comprehendeth the rules of judgment upon that which is invented, so the doctrine of method containeth the rules of judgment upon that which is to be delivered; for judgment precedeth delivery, as it followeth invention. Neither is the method or the nature of the tradition ma-

terial only to the use of knowledge, but likewise to the progression of knowledge: for since the labour and life of one man cannot attain to perfection of knowledge, the wisdom of the tradition is that which inspireth the felicity of continuance and proceeding. And therefore the most real diversity of method is of method referred to use, and method referred to progression; whereof the one may be termed magisterial, and the other of probation.

Of method magisterial and probationary.

The latter whereof seemeth to be *via deserta et interclusa*. For as knowledges are now delivered, there is a kind of contract of error between the deliverer and the receiver: for he that delivereth knowledge, desireth to deliver it in such form as may be best believed, and not as may be best examined; and he that receiveth knowledge, desireth rather present satisfaction than expectant enquiry; and so rather not to doubt than not to err: glory making the author not to lay open his weakness, and sloth making the disciple not to know his strength.

But knowledge, that is delivered as a thread to be spun on, ought to be delivered and in-

Of the Synthetic method

timated, if it were possible, in the same method wherein it was invented: and so is it possible of knowledge induced. But in this same anticipated and prevented knowledge, no man knoweth how he came to the knowledge which he hath obtained. But yet nevertheless, *secundum majus et minus*, a man may revisit and descend unto the foundations of his knowledge and consent; and so transplant it into another, as it grew in his own mind. For it is in knowledges as it is in plants, if you mean to use the plant, it is no matter for the roots; but if you mean to remove it to grow, then it is more assured to rest upon roots than slips: so the delivery of knowledges, as it is now used, is as of fair bodies of trees without the roots; good for the carpenter, but not for the planter. But if you will have sciences grow, it is less matter for the shaft or body of the tree, so you look well to the taking up of the roots: of which kind of delivery the method of the mathematics, in that subject, hath some shadow; but generally I see it neither put in ure nor put in inquisition, and therefore note it for deficient.

Another diversity of method there is, which hath some affinity with the former, used in some cases by the discretion of the ancients, but disgraced since by the impostures of many vain persons, who have made it as a false light for their counterfeit merchandises; and that is, enigmatical and disclosed. The pretence whereof is to remove the vulgar capacities from being admitted to the secrets of knowledges, and to reserve them to selected auditors, or wits of such sharpness as can pierce the veil. Of the Enigmatical method.

Another diversity of method, whereof the consequence is great, is the delivery of knowledge in aphorisms, or in methods; wherein we may observe, that it hath been too much taken into custom, out of a few axioms or observations upon any subject, to make a solemn and formal art, filling it with some discourses, and illustrating it with examples, and digesting it into a sensible method; but the writing in aphorisms hath many excellent virtues, whereto the writing in method doth not approach. Of Aphorisms and Methods.

For first it trieth the writer, whether he be superficial or solid: for aphorisms, except

they should be ridiculous, cannot be made but of the pith and heart of sciences; for discourse of illustration is cut off; recitals of examples are cut off; discourse of connection and order is cut off; descriptions of practice are cut off; so there remaineth nothing to fill the aphorisms but some good quantity of observation: and therefore no man can suffice, nor in reason will attempt to write aphorisms, but he that is sound and grounded. But in methods,

Tantum series juncturaque pollet,
Tantum de medio sumptis accedit honoris;

as a man shall make a great shew of an art, which if it were disjointed, would come to little. Secondly, methods are more fit to win consent or belief, but less fit to point to action; for they carry a kind of demonstration in orb or circle, one part illuminating another, and therefore satisfy: but particulars, being dispersed, do best agree with dispersed directions. And lastly, aphorisms, representing a knowledge broken, do invite men to enquire farther; whereas methods, carrying the shew of a total, do secure men as if they were at farthest.

Another diversity of method, which is likewise of great weight, is the handling of knowledge by assertions and their proofs, or by questions and their determinations; the latter kind whereof, if it be immoderately followed, is as prejudicial to the proceeding of learning, as it is to the proceeding of an army to go about to besiege every little fort or hold. For if the field be kept, and the sum of the enterprise pursued, those smaller things will come in of themselves: indeed a man would not leave some important place with an enemy at his back. In like manner, the use of confutation in the delivery of sciences ought to be very sparing; and to serve to remove strong preoccupations and prejudgments, and not to minister and excite disputations and doubts.

Of the method of Assertion and Questions.

Another diversity of method is according to the subject or matter which is handled; for there is a great difference in the delivery of the mathematics, which are the most abstracted of knowledges, and policy, which is the most immersed; and howsoever contention hath been moved, touching an uniformity of method in multiformity of matter; yet

Of method according to the matter.

we see how that opinion, besides the weakness of it, hath been of ill desert towards learning, as that which taketh the way to reduce learning to certain empty and barren generalities; being but the very husks and shells of sciences, all the kernel being forced out and expulsed with the torture and press of the method: and therefore as I did allow well of particular topics for invention, so do I allow likewise of particular methods of tradition.

Of methods by Parables or Similitudes.

Another diversity of judgment, in the delivery and teaching of knowledge, is according unto the light and presuppositions of that which is delivered; for that knowledge which is new and foreign from opinions received is to be delivered in another form than that that is agreeable and familiar; and therefore Aristotle, when he thinks to tax Democritus, doth in truth commend him, where he saith, "If we shall indeed dispute, and not follow "after similitudes," *etc.* For those, whose conceits are seated in popular opinions, need only but to prove or dispute: but those, whose conceits are beyond popular opinions, have a double labour; the one to make them-

selves conceived, and the other to prove and demonstrate: so that it is of necessity with them to have recourse to similitudes and translations to express themselves. And therefore in the infancy of learning, and in rude times, when those conceits which are now trivial were then new, the world was full of parables and similitudes; for else would men either have passed over without mark, or else rejected for paradoxes that which was offered, before they had understood or judged. So in divine learning, we see how frequent parables and tropes are: for it is a rule, "That whatsoever science is not consonant "to presuppositions, must pray in aid of "similitudes."

Of other arts of method.

There be also other diversities of methods, vulgar and received: as that of resolution or *analysis*, of constitution or *systasis*, of concealment or *cryptic*, *etc.* which I do allow well of, though I have stood upon those which are least handled and observed. All which I have remembered to this purpose, because I would erect and constitute one general enquiry, which seems to me deficient, touching the wisdom of tradition.

As to the limitation and manner of propositions.

But unto this part of knowledge, concerning method, doth farther belong not only the architecture of the whole frame of a work, but also the several beams and columns thereof; not as to their stuff, but as to their quantity and figure: and therefore method considereth not only the disposition of the argument or subject, but likewise the propositions; not as to their truth or matter, but as to their limitation and manner. For herein Ramus merited better a great deal in reviving the good rules of propositions, Καθόλου πρῶτον κατὰ παντος, *etc.* than he did in introducing the canker of epitomes; and yet, (as it is the condition of human things, that, according to the ancient fables, "The most "precious things have the most pernicious "keepers;") it was so, that the attempt of the one made him fall upon the other. For he had need be well conducted, that should design to make axioms convertible; if he make them not withal circular, and *non promovent*, or incurring into themselves: but yet the intention was excellent.

As to their latitude and longitude.

The other considerations of method concerning propositions, are chiefly touching

the utmost propositions, which limit the dimensions of sciences; for every knowledge may be fitly said, besides the profundity (which is the truth and substance of it that makes it solid) to have a longitude and a latitude; accounting the latitude towards other sciences, and the longitude towards action; that is, from the greatest generality to the most particular precept: The one giveth rule how far one knowledge ought to intermeddle within the province of another, which is the rule they call καθαυτὸ; the other giveth rule unto what degree of particularity a knowledge should descend: which latter I find passed over in silence, being in my judgment the more material; for certainly there must be somewhat left to practice; but how much is worthy the enquiry. We see remote and superficial generalities do but offer knowledge to scorn of practical men, and are no more aiding to practice than an Ortelius's universal map is to direct the way between London and York. The better sort of rules have been not unfitly compared to glasses of steel unpolished, where you may see the images of things; but first they must be

filed: so the rules will help, if they be laboured and polished by practice. But how chrystalline they may be made at the first, and how far forth they may be polished aforehand, is the question; the enquiry whereof seemeth to me deficient.

Of technical method.

There hath been also laboured and put in practice a method, which is not a lawful method, but a method of imposture; which is, to deliver knowledges in such manner as men may speedily come to make a shew of learning who have it not: such was the travel of Raymundus Lullius, in making that art which bears his name; not unlike to some books of typocosmy which have been made since, being nothing but a mass of words of all arts, to give men countenance, that those which use the terms might be thought to understand the art; which collections are much like a fripper's or broker's shop, that hath ends of every thing, but nothing of worth.

Of Rhetoric, or the art of Eloquence.

Now we descend to that part which concerneth the illustration of tradition, comprehended in that science which we call Rhetoric, or art of eloquence; a science excellent, and excellently well laboured. For although

in true value it is inferior to wisdom (as it is said by God to Moses, when he disabled himself for want of this faculty, *Aaron shall be thy speaker, and thou shalt be to him as God)* yet with people it is the more mighty: for so Solomon saith, *Sapiens corde appellabitur prudens, sed dulcis eloquio majora reperiet;* signifying, that profoundness of wisdom will help a man to a name or admiration, but that it is eloquence that prevaileth in an active life: and as to the labouring of it, the emulation of Aristotle with the rhetoricians of his time, and the experience of Cicero, hath made them in their works of rhetorics exceed themselves. Again, the excellency of examples of eloquence in the orations of Demosthenes and Cicero, added to the perfection of the precepts of eloquence, hath doubled the progression in this art: and therefore the deficiences which I shall note will rather be in some collections, which may as hand-maids attend the art, than in the rules or use of the art itself.

Purpose of Rhetoric.

Notwithstanding, to stir the earth a little about the roots of this science, as we have done of the rest; the duty and office of rhe-

toric is to apply reason to imagination for the better moving of the will: for we see reason is disturbed in the administration thereof by three means; by illaqueation or sophism, which pertains to logic; by imagination or impression, which pertains to rhetoric; and by passion or affection, which pertains to morality. And as in negotiation with others, men are wrought by cunning, by importunity, and by vehemency; so in this negotiation within ourselves, men are undermined by inconsequences, solicited and importuned by impressions or observations, and transported by passions. Neither is the nature of man so unfortunately built, as that those powers and arts should have force to disturb reason, and not to establish and advance it; for the end of logic is to teach a form of argument to secure reason, and not to intrap it: the end of morality is to procure the affections to obey reason, and not to invade it: the end of rhetoric is to fill the imagination to second reason, and not to oppress it: for these abuses of arts come in but *ex obliquo*, for caution.

Importance of Rhetoric.

And therefore it was great injustice in

Plato, though springing out of a just hatred of the rhetoricians of his time, to esteem of rhetoric but as a voluptuary art, resembling it to cookery, that did mar wholesome meats, and help unwholesome by variety of sauces, to the pleasure of the taste. For we see that speech is much more conversant in adorning that which is good, than in colouring that which is evil; for there is no man but speaketh more honestly than he can do or think: and it was excellently noted by Thucydides in Cleon, that because he used to hold on the bad side in causes of estate, therefore he was ever inveighing against eloquence and good speech, knowing that no man can speak fair of courses sordid and base. And therefore as Plato said elegantly, "That Virtue, if she could be seen, would "move great love and affection:" so seeing that she cannot be shewed to the sense by corporal shape, the next degree is to shew her to the imagination in lively representation: for to shew her to reason only in subtilty of argument, was a thing ever derided in Chrysippus and many of the Stoics; who thought to thrust virtue upon men by sharp

disputations and conclusions, which have no sympathy with the will of man.

Again, if the affections in themselves were pliant and obedient to reason, it were true, there would be no great use of persuasions and insinuations to the will, more than of naked proposition and proofs: but in regard of the continual mutinies and seditions of the affections,

Video meliora, proboque,
Deteriora sequor;

Reason would become captive and servile, if eloquence of persuasions did not practise and win the imagination from the affections' part, and contract a confederacy between the reason and imagination against the affections; for the affections themselves carry ever an appetite to good, as reason doth. The difference is, that the affection beholdeth merely the present, reason beholdeth the future and sum of time. And therefore the present filling the imagination more, reason is commonly vanquished; but after that force of eloquence and persuasion hath made things future and remote appear as present, then

upon revolt of the imagination reason prevaileth.

We conclude therefore, that rhetoric can be no more charged with the colouring of the worse part, than logic with sophistry, or morality with vice. For we know the doctrines of contraries are the same, though the use be opposite. It appeareth also that logic differeth from rhetoric, not only as the fist from the palm, the one close, the other at large; but much more in this, that logic handleth reason exact, and in truth; and rhetoric handleth it as it is planted in popular opinions and manners. And therefore Aristotle doth wisely place rhetoric as between logic on the one side, and moral or civil knowledge on the other, as participating of both: for the proof and demonstrations of logic are towards all men indifferent and the same; but the proofs and persuasions of rhetoric ought to differ according to the auditors:

Difference between Rhetoric and Logic.

Orpheus in sylvis, inter delphinas Arion.

Which application, in perfection of idea, ought to extend so far, that if a man should speak of the same thing to several persons, he should speak to them all respectively, and

several ways: though this politic part of eloquence in private speech it is easy for the the greatest orators to want; whilst by the observing their well graced forms of speech, they lose the volubility of application: and therefore it shall not be amiss to recommend this to better enquiry, not being curious whether we place it here, or in that part which concerneth policy.

Defects of Aristotle.

Now therefore will I descend to the deficiences, which, as I said, are but attendances: and first, I do not find the wisdom and diligence of Aristotle well pursued, who began to make a collection of the popular signs and colours of good and evil, both simple and comparative, which are as the sophisms of rhetoric, as I touched before. For example:

SOPHISMA.

Quod laudatur, bonum: quod vituperatur, malum.

REDARGUTIO.

Laudat venales qui vult extrudere merces.
Malum est, malum est, inquit emptor: sed cum recesserit, tum gloriabitur.

The defects in the labour of Aristotle are three; one, that there be but a few of many;

another, that their elenches are not annexed; and the third, that he conceived but a part of the use of them: for their use is not only in probation, but much more in impression. For many forms are equal in signification, which are differing in impression; as the difference is great in the piercing of that which is sharp, and that which is flat, though the strength of the percussion be the same: for there is no man but will be a little more raised by hearing it said; "Your enemies "will be glad of this?"

Hoc Ithacus velit, et magno mercentur Atridæ;

than by hearing it said only, "This is evil "for you."

Of antithets and lesser forms.

Secondly, I do resume also that which I mentioned before, touching provision or preparatory store, for the furniture of speech and readiness of invention, which appeareth to be of two sorts; the one in resemblance to a shop of pieces unmade up, the other to a shop of things ready made up; both to be applied to that which is frequent and most in request: the former of these I will call *antitheta*, and the latter *formulæ*.

Antitheta are *theses* argued *pro et contra;*

wherein men may be more large and laborious: but in such as are able to do it, to avoid prolixity of entry, I wish the seeds of the several arguments to be cast up into some brief and acute sentences, not to be cited, but to be as skains or bottoms of thread, to be unwinded at large when they come to be used; supplying authorities and examples by reference.

PRO VERBIS LEGIS.

Non est interpretatio, sed divinatio, quæ recedit à litera.

Cum receditur à litera, judex transit in legislatorem.

PRO SENTENTIA LEGIS.

Ex omnibus verbis est eliciendus sensus qui interpretatur singula.

Formulæ are but decent and apt passages or conveyances of speech, which may serve indifferently for differing subjects; as of preface, conclusion, digression, transition, excusation, *etc.* For as in buildings, there is great pleasure and use in the well-casting of the stair-cases, entries, doors, windows, and the like; so in speech, the con-

veyances and passages are of special ornament and effect.

A Conclusion in a Deliberative.

So may we redeem the faults passed, and prevent the inconveniences future.

There remain two *appendices* touching the tradition of knowledge, the one critical, the other pedantical; for all knowledge is either delivered by teachers, or attained by men's proper endeavours: and therefore as the principal part of tradition of knowledge concerneth chiefly writing of books, so the relative part thereof concerneth reading of books: whereunto appertain incidently these considerations. The first is concerning the true correction and edition of authors; wherein nevertheless rash diligence hath done great prejudice. For these critics have often presumed that that which they understood not is false set down. As the priest, that where he found it written of St. Paul, *Demissus est per sportam*, mended his book, and made it *Demissus est per portam*; because *sporta* was an hard word, and out of his reading: and surely these errors, though they be not so palpable and ri-

Two appendices to the art of Tradition.

The Critical.

diculous, are yet of the same kind. And therefore as it hath been wisely noted, the most corrected copies are commonly the least correct.

The second is concerning the exposition and explication of authors; which resteth in annotations and commentaries; wherein it is over usual to blanch the obscure places and discourse upon the plain.

The third is concerning the times, which in many cases give great light to true interpretations.

The fourth is concerning some brief censure and judgment of the authors; that men thereby may make some election unto themselves what books to read.

And the fifth is concerning the syntax and disposition of studies; that men may know in what order or pursuit to read.

The Pedantical.

For pedantical knowledge, it containeth that difference of tradition which is proper for youth, whereunto appertain divers considerations of great fruit.

As first the timing and seasoning of knowledges; as with what to initiate them, and from what for a time to refrain them.

Secondly, the consideration where to begin with the easiest, and so proceed to the more difficult; and in what courses to press the more difficult, and then to turn them to the more easy; for it is one method to practice swimming with bladders, and another to practise dancing with heavy shoes.

A third is the application of learning according unto the propriety of the wits; for there is no defect in the faculties intellectual but seemeth to have a proper cure contained in some studies: as for example, if a child be bird-witted, that is, hath not the faculty of attention, the mathematics giveth a remedy thereunto; for in them, if the wit be caught away but a moment, one is to begin anew: and as sciences have a propriety towards faculties for cure and help, so faculties or powers have a sympathy towards sciences for excellency or speedy profiting; and therefore it is an enquiry of great wisdom what kinds of wits and natures are most proper for what sciences.

Fourthly, the ordering of exercises is matter of great consequence to hurt or help: for, as is well observed by Cicero,

men in exercising their faculties, if they be not well advised, do exercise their faults and get ill habits as well as good; so there is a great judgment to be had in the continuance and intermission of exercises. It were too long to particularize a number of other considerations of this nature; things but of mean appearance, but of singular efficacy: for as the wronging or cherishing of seeds or young plants is that that is most important to their thriving; (and as it was noted that the first six kings, being in truth as tutors of the state of Rome in the infancy thereof, was the principal cause of the immense greatness of that state which followed;) so the culture and manurance of minds in youth hath such a forcible, though unseen, operation, as hardly any length of time or contention of labour can countervail it afterwards. And it is not amiss to observe also, how small and mean faculties gotten by education, yet when they fall into great men or great matters, do work great and important effects; whereof we see a notable example in Tacitus of two stage players, Percennius

and Vibulenus, who by their faculty of playing put the Pannonian armies into an extreme tumult and combustion: for there arising a mutiny amongst them upon the death of Augustus Cæsar, Blæsus the lieutenant had committed some of the mutineers, which were suddenly rescued; whereupon Vibulenus got to be heard speak, which he did in this manner:—"These poor innocent wretches, appointed to cruel death, you have restored to behold the light: but who shall restore my brother to me, or life unto my brother, that was sent hither in message from the legions of Germany, to treat of the common cause? And he hath murdered him this last night by some of his fencers and ruffians, that he hath about him for his executioners upon soldiers. Answer, Blæsus, what is done with his body? The mortalest enemies do not deny burial: when I have performed my last duties to the corpse with kisses, with tears, command me to be slain beside him; so that these my fellows, for our good meaning, and our true hearts to the legions, may have leave

" to bury us." With which speech he put the army into an infinite fury and uproar; whereas truth was he had no brother, neither was there any such matter; but he played it merely as if he had been upon the stage.

Conclusion.

But to return, we are now come to a period of rational knowledges; wherein if I have made the divisions other than those that are received, yet would I not be thought to disallow all those divisions which I do not use: for there is a double necessity imposed upon me of altering the divisions; the one, because it differeth in end and purpose, to sort together those things which are next in nature, and those things which are next in use; for if a secretary of state should sort his papers, it is like in his study or general cabinet he would sort together things of a nature, as treaties, instructions, *etc.* but in his boxes or particular cabinet he would sort together those that he were like to use together, though of several natures; so in this general cabinet of knowledge it was necessary for me to follow the divisions of the nature of things; whereas if myself had been

to handle any particular knowledge, I would have respected the divisions fittest for use, the other, because the bringing in of the deficiences did by consequence alter the partitions of the rest; for let the knowledge extant, for demonstration sake, be fifteen; let the knowledge with the deficiences be twenty; the parts of fifteen are not the parts of twenty; for the parts of fifteen are three and five; the parts of twenty are two, four, five and ten: so as these things are without contradiction, and could not otherwise be.

MORAL PHILOSOPHY.

We proceed now to that knowledge which considereth of the *Appetite and Will of Man;* whereof Solomon saith, *Ante omnia, fili, custodi cor tuum, nam inde procedunt actiones vitæ.* In the handling of this science, those which have written seem to me to have done as if a man, that professeth to teach to write, did only exhibit fair copies of alphabets and letters joined, without giving

any precepts or directions for the carriage of the hand and framing of the letters; so have they made good and fair examplars and copies, carrying the draughts and portraitures of good, virtue, duty, felicity; propounding them well described as the true objects and scopes of man's will and desires; but how to attain these excellent marks, and how to frame and subdue the will of man to become true and conformable to these pursuits, they pass it over altogether, or slightly and unprofitably: for it is not the disputing that moral virtues are in the mind of man by habit and not by nature, or the distinguishing that generous spirits are won by doctrines and persuasions, and the vulgar sort by reward and punishment, and the like scattered glances and touches, that can excuse the absence of this part.

The reason of this omission I suppose to be that hidden rock whereupon both this and many other barks of knowledge have been cast away; which is, that men have despised to be conversant in ordinary and common matters, (the judicious direction whereof nevertheless is the wisest doctrine,

for life consisteth not in novelties nor subtilities,) but contrariwise they have compounded sciences chiefly of a certain resplendent or lustrous mass of matter, chosen to give glory either to the subtility of disputations, or to the eloquence of discourses. But Seneca giveth an excellent check to eloquence; *Nocet illis eloquentia, quibus non rerum cupiditatem facit, sed sui.* Doctrine should be such as should make men in love with their lesson, and not with the teacher; being directed to the auditor's benefit, and not to the author's commendation; and therefore those are of the right kind, which may be concluded as Demosthenes concludes his counsel, *Quæ si feceritis, non oratorem duntaxat in præsentia laudabitis, sed vosmetipsos etiam, non ita multo post statu rerum vestrarum meliore.* Neither needed men of so excellent parts to have despaired of a fortune, which the poet Virgil promised himself, and indeed obtained, who got as much glory of eloquence, wit, and learning, in the expressing of the observations of husbandry as of the heroical acts of Æneas:—

Nec sum animi dubius, verbis ea vincere magnum
Quàm sit, et angustis hunc addere rebus honorem.
Georg. iii. 289.

Two parts of moral knowledge.

And surely, if the purpose be in good earnest not to write at leisure that which men may read at leisure, but really to instruct and suborn action and active life, these georgics of the mind, concerning the husbandry and tillage thereof, are no less worthy than the heroical descriptions of virtue, duty, and felicity. Wherefore the main and primitive division of moral knowledge seemeth to be into the Exemplar or Platform of Good, and the Regiment or Culture of the Mind; the one describing the nature of good, the other prescribing rules how to subdue, apply, and accommodate the will of man thereunto.

1. Of the nature of Good.

The doctrine touching the Platform or Nature of Good considereth it either *simple* or *compared;* either the kinds of good, or the degrees of good: in the latter whereof those infinite disputations which were touching the supreme degree thereof, which they term felicity, beatitude, or the highest good, the

doctrines concerning which were as the heathen divinity, are by the christian faith discharged. And, as Aristotle saith, "That "young men may be happy, but not otherwise but by hope;" so we must all acknowledge our minority, and embrace the felicity which is by hope of the future world.

Method of the Antients in this enquiry.

Freed therefore and delivered from this doctrine of the philosophers' heaven, whereby they feigned an higher elevation of man's nature than was (for we see in what an height of stile Seneca writeth, *Vere magnum, habere fragilitatem hominis, securitatem Dei)* we may with more sobriety and truth receive the rest of their enquiries and labours; wherein for the nature of good, positive or simple, they have set it down excellently, in describing the forms of virtue and duty with their situations and postures; in distributing them into their kinds, parts, provinces, actions, and administrations, and the like: nay farther, they have commended them to man's nature and spirit, with great quickness of argument and beauty of persuasions; yea, and fortified and intrenched them, as much as discourse

can do, against corrupt and popular opinions. Again, for the degrees and comparative nature of good, they have also excellently handled it in their triplicity of good, in the comparison between a contemplative and an active life, in the distinction between virtue with reluctation and virtue secured, in their encounters between honesty and profit, in their balancing of virtue with virtue, and the like; so as this part deserveth to be reported for excellently laboured.

Notwithstanding, if before they had come to the popular and received notions of virtue and vice, pleasure and pain, and the rest, they had stayed a little longer upon the enquiry concerning the roots of good and evil, and the strings of those roots, they had given, in my opinion, a great light to that which followed; and especially if they had consulted with nature, they had made their doctrines less prolix and more profound: which being by them in part omitted, and in part handled with much confusion, we will endeavour to resume and open in a more clear manner.

There is formed in every thing a double

nature of good; the one as every thing is a total or substantive in itself, the other as it is a part or member of a greater body; whereof the latter is in degree the greater and the worthier, because it tendeth to the conservation of a more general form: therefore we see the iron in particular sympathy moveth to the loadstone, but yet if it exceed a certain quantity, it forsaketh the affection to the loadstone, and like a good patriot moveth to the earth, which is the region and country of massy bodies: so may we go forward, and see that water and massy bodies move to the centre of the earth, but rather than to suffer a divulsion in the continuance of nature they will move upwards from the centre of the earth, forsaking their duty to the earth in regard of their duty to the world. This double nature of good and the comparative thereof is much more engraven upon man, if he degenerate not, unto whom the conservation of duty to the public ought to be much more precious than the conservation of life and being; according to that memorable speech of Pompeius Magnus, when being in commission of purveyance for

Of Good, positive and relative.

a famine at Rome, and being dissuaded with great vehemency and instance by his friends about him, that he should not hazard himself to sea in an extremity of weather, he said only to them *Necesse est ut eam, non ut vivam.* But it may be truly affirmed that there was never any philosophy, religion, or other discipline, which did so plainly and highly exalt the good which is communicative, and depress the good which is private and particular, as the holy faith: well declaring, that it was the same God that gave the christian law to men, who gave those laws of nature to inanimate creatures that we spake of before; for we read that the elected saints of God have wished themselves anathematized and razed out of the book of life, in an extasy of charity and infinite feeling of communion.

The Christian Law determines most of the Controversies in Morals.

This being set down and strongly planted, doth judge and determine most of the controversies wherein moral philosophy is conversant. For first, it decideth the question touching the preferment of the contemplative or active life, and decideth it against Aristotle: for all the reasons which he

Against Aristotle.

bringeth for the contemplative are private, and respecting the pleasure and dignity of a man's self, in which respects, no question, the contemplative life hath the pre-eminence; not much unlike to that comparison, which Pythagoras made for the gracing and magnifying of philosophy and contemplation; who being asked what he was, answered, "That if Hiero were ever at the Olympian "games, he knew the manner, that some came "to try their fortune for the prizes, and some "came as merchants to utter their commo-"dities, and some came to make good cheer "and meet their friends, and some came to "look on: and that he was one of them that "came to look on." But men must know that in this theatre of man's life it is reserved only for God and angels to be lookers on: neither could the like question ever have been received in the church (notwithstanding their *Pretiosa in oculis Domini mors sanctorum ejus*, by which place they would exalt their civil death and regular professions) but upon this defence, that the monastical life is not simply contemplative, but performeth the duty either of incessant prayers and suppli-

cations, which hath been truly esteemed as an office in the church, or else of writing or taking instructions for writing concerning the law of God; as Moses did when he abode so long in the mount. And so we see Enoch the seventh from Adam, who was the first contemplative, and walked with God, yet did also endow the church with prophecy, which St. Jude citeth. But for contemplation which should be finished in itself, without casting beams upon society, assuredly divinity knoweth it not.

That between Zeno and Socrates, &c.

It decideth also the controversies between Zeno and Socrates, and their schools and successions on the one side, who placed felicity in virtue simply or attended; the actions and exercises whereof do chiefly embrace and concern society; and on the other side, the Cyrenaics and Epicureans, who placed it in pleasure, and made virtue (as it is used in some comedies of errors, wherein the mistress and the maid change habits) to be but as a servant, without which pleasure cannot be served and attended, and the reformed school of the Epicureans, which placed it in serenity of mind and freedom from perturba-

tion, (as if they would have deposed Jupiter again, and restored Saturn and the first age, when there was no summer nor winter, spring nor autumn, but all after one air and season,) and Herillus, who placed felicity in extinguishment of the disputes of the mind, making no fixed nature of good and evil, esteeming things according to the clearness of the desires, or the reluctation; which opinion was revived in the heresy of the Anabaptists, measuring things according to the motions of the spirit, and the constancy or wavering of belief: all which are manifest to tend to private repose and contentment, and not to point of society.

Against the philosophy of Epictetus.

It censureth also the philosophy of Epictetus, which presupposeth that felicity must be placed in those things which are in our power, lest we be liable to fortune and disturbance; as if it were not a thing much more happy to fail in good and virtuous ends for the public, than to obtain all that we can wish to ourselves in our proper fortune; as Gonsalvo said to his soldiers, shewing them Naples, and protesting, "He had rather die "one foot forwards, than to have his life se-

" cured for long by one foot of retreat." Whereunto the wisdom of that heavenly leader hath signed, who hath affirmed *that a good conscience is a continual feast;* shewing plainly that the conscience of good intentions, howsoever succeeding, is a more continual joy to nature than all the provision which can be made for security and repose.

Against making Philosophy an occupation.

It censureth likewise that abuse of philosophy, which grew general about the time of Epictetus, in converting it into an occupation or profession; as if the purpose had been not to resist and extinguish perturbations, but to fly and avoid the causes of them, and to shape a particular kind and course of life to that end; introducing such an health of mind, as was that health of body of which Aristotle speaketh of Herodicus, who did nothing all his life long but intend his health: whereas if men refer themselves to duties of society, as that health of body is best, which is ablest to endure all alterations and extremities; so likewise that health of mind is most proper, which can go through the greatest temptations and perturbations. So as

Diogenes's opinion is to be accepted, who commended not them which abstained, but them which sustained, and could refrain their mind *in præcipitio,* and could give unto the mind, as is used in horsemanship, the shortest stop or turn.

Against a retired life.

Lastly, it censureth the tenderness and want of application in some of the most ancient and reverend philosophers and philosophical men, that did retire too easily from civil business, for avoiding of indignities and perturbations; whereas the resolution of men truly moral ought to be such as the same Gonsalvo said the honour of a soldier should be, *è tela crassiore,* and not so fine as that every thing should catch in it and endanger it.

Of Active and Passive good.

To resume private or particular good, it falleth into the division of good active and passive: for this difference of good, not unlike to that which amongst the Romans was expressed in the familiar or houshold terms of *Promus* and *Condus,* is formed also in all things, and is best disclosed in the two several appetites in creatures; the one to preserve or continue themselves, and the other to dilate or multiply themselves; whereof the lat-

ter seemeth to be the worthier: for in nature the heavens, which are more worthy, are the agent; and the earth, which is the less worthy, is the patient: in the pleasures of living creatures, that of generation is greater than that of food: in divine doctrine, *Beatius est dare quàm accipere:* and in life, there is no man's spirit so soft but esteemeth the effecting of somewhat that he hath fixed in his desire, more than sensuality. Which priority of the active good is much upheld by the consideration of our estate to be mortal and exposed to fortune: for if we might have a perpetuity and certainty in our pleasures, the state of them would advance their price; but when we see it is but *Magni æstimamus mori tardius,* and *Ne glorieris de crastino, nescis partum diei,* it maketh us to desire to have somewhat secured and exempted from time, which are only our deeds and works; as it is said *Opera eorum sequuntur eos.* The preeminence likewise of this active good is upheld by the affection which is natural in man towards variety and proceeding; which in the pleasures of the sense, which is the principal part of passive good, can have no great latitude: *Cogita quamdiu eadem feceris; cibus,*

somnus, ludus per hunc circulum curritur; mori velle non tantum fortis, aut miser, aut prudens, sed etiam fastidiosus potest: but in enterprises, pursuits, and purposes of life, there is much variety, whereof men are sensible with pleasure in their inceptions, progressions, recoils, re-integrations, approaches and attainings to their ends. So as it was well said, *Vita sine proposito languida et vaga est.* Neither hath this active good any identity with the good of society, though in some case it hath an incidence into it: for although it do many times bring forth acts of beneficence, yet it is with a respect private to a man's own power, glory, amplification, continuance; as appeareth plainly, when it findeth a contrary subject. For that gigantine state of mind which possesseth the troublers of the world (such as was Lucius Sylla, and infinite other in smaller model, who would have all men happy or unhappy as they were their friends or enemies, and would give form to the world according to their own humours, which is the true theomachy) pretendeth and aspireth to active good, though

it recedeth farthest from good of society, which we have determined to be the greater.

Passive good, Conservative and Perfective.

To resume passive good, it receiveth a subdivision of conservative and perfective. For let us take a brief review of that which we have said; we have spoken first of the good of society, the intention whereof embraceth the form of human nature, whereof we are members and portions, and not our own proper and individual form; we have spoken of active good, and supposed it as a part of private and particular good: and rightly, for there is impressed upon all things a triple desire or appetite proceeding from love to themselves; one of preserving and continuing their form; another of advancing and perfecting their form; and a third of multiplying and extending their form upon other things; whereof the multiplying, or signature of it upon other things, is that which we handled by the name of active good. So as there remaineth the conserving of it, and perfecting or raising of it; which latter is the highest degree of passive good. For to preserve in state is the less, to preserve with advancement is the greater. So in man,—

Igneus est ollis vigor, et cœlestis origo.

His approach or assumption to divine or angelical nature is the perfection of his form; the error or false imitation of which good is that which is the tempest of human life; while man, upon the instinct of an advancement formal and essential, is carried to seek an advancement local. For as those which are sick, and find no remedy, do tumble up and down and change place, as if by a remove local they could obtain a remove internal, so is it with men in ambition, when failing of the means to exalt their nature, they are in a perpetual estuation to exalt their place. So then passive good is, as was said, either conservative or perfective.

Fruition estimated either by its sincereness or its vigour.

To resume the good of conservation or comfort, which consisteth in the fruition of that which is agreeable to our natures; it seemeth to be the most pure and natural of pleasures, but yet the softest and the lowest. And this also receiveth a difference, which hath neither been well judged of, nor well enquired: for the good of fruition or contentment is placed either in the sincereness of the fru-

ition, or in the quickness and vigour of it; the one superinduced by equality, the other by vicissitude; the one having less mixture of evil, the other more impression of good. Whether of these is the greater good, is a question controverted; but whether man's nature may not be capable of both, is a question not enquired.

Debate between Socrates and a Sophist.

The former question being debated between Socrates and a sophist, Socrates placing felicity in an equal and constant peace of mind, and the sophist in much desiring and much enjoying, they fell from argument to ill words: the sophist saying that Socrates's felicity was the felicity of a block or stone; and Socrates saying that the sophist's felicity was the felicity of one that had the itch, who did nothing but itch and scratch. And both these opinions do not want their supports; for the opinion of Socrates is much upheld by the general consent even of the Epicures themselves; that virtue beareth a great part in felicity: and if so, certain it is, that virtue hath more use in clearing perturbations than in compassing desires. The sophist's opinion is much favoured by the assertion we

last spake of, that good of advancement is greater than good of simple preservation; because every obtaining a desire hath a shew of advancement, as motion though in a circle hath a shew of progression.

But the second question decided the true way maketh the former superfluous: for can it be doubted but that there are some who take more pleasure in enjoying pleasures, than some other; and yet nevertheless are less troubled with the loss or leaving of them: so as this same, *Non uti ut non appetas, non appetere ut non metuas, sunt animi pusilli et diffidentis.* And it seemeth to me that most of the doctrines of the philosophers are more fearful and cautionary than the nature of things requireth: so have they increased the fear of death in offering to cure it: for when they would have a man's whole life to be but a discipline or preparation to die, they must needs make men think that it is a terrible enemy against whom there is no end of preparing. Better saith the poet,

Doctrines of the Philosophers too cautionary and too uniform.

Qui finem vitæ extremum inter munera ponat
Naturæ:

So have they sought to make men's minds

too uniform and harmonical, by not breaking them sufficiently to contrary motions: the reason whereof I suppose to be, because they themselves were men dedicated to a private, free, and unapplied course of life. For as we see, upon the lute or like instrument, a ground, though it be sweet and have shew of many changes, yet breaketh not the hand to such strange and hard stops and passages, as a set song or voluntary; much after the same manner was the diversity between a philosophical and a civil life. And therefore men are to imitate the wisdom of jewellers; who if there be a grain, or a cloud, or an ice which may be ground forth without taking too much of the stone, they help it; but if it should lessen and abate the stone too much, they will not meddle with it: so ought men so to procure serenity, as they destroy not magnanimity.

Of Good with respect to Society, or of Duty.

Having therefore deduced the good of man, which is private and particular, as far as seemeth fit, we will now return to that good of man which respecteth and beholdeth Society, which we may term *duty;* because the term of duty is more proper to a mind well

framed and disposed towards others, as the term of virtue is applied to a mind well formed and composed in itself: though neither can a man understand virtue without some relation to society, nor duty without an inward disposition. This part may seem at first to pertain to science civil and politic; but not if it be well observed: for it concerneth the regimen and government of every man over himself, and not over others. And as in architecture the direction of the framing the posts, beams, and other parts of building, is not the same with the manner of joining them and erecting the building; and in mechanicals, the direction how to frame an instrument or engine is not the same with the manner of setting it on work and employing it, (and yet nevertheless in expressing of the one you incidently express the aptness towards the other) so the doctrine of conjugation of men in society differeth from that of their conformity thereunto.

Of a man's duty to the State, and to his Profession.

This part of duty is subdivided into two parts; the *common duty* of every man, as a man or member of a state; the other the *respective or special duty* of every man, in his

profession, vocation, and place. The first of these is extant and well laboured, as hath been said. The second likewise I may report rather dispersed than deficient; which manner of dispersed writing in this kind of argument I acknowledge to be best: for who can take upon him to write of the proper duty, virtue, challenge, and right of every several vocation, profession, and place? For although sometimes a looker on may see more than a gamester, and there be a proverb more arrogant than sound, "That the vale best discovereth the hill;" yet there is small doubt but that men can write best, and most really and materially in their own professions; and that the writing of speculative men of active matter, for the most part, doth seem to men of experience, as Phormio's argument of the wars seemed to Hannibal, to be but dreams and dotage. Only there is one vice which accompanieth them that write in their own professions, that they magnify them in excess; but generally it were to be wished, as that which would make learning indeed solid and fruitful, that active men would or could become writers.

In which I cannot but mention, *honoris causâ*, your majesty's excellent book touching the duty of a king: a work richly compounded of divinity, morality, and policy, with great aspersion of all other arts; and being in mine opinion one of the most sound and healthful writings that I have read; not distempered in the heat of invention, nor in the coldness of negligence; not sick of business, as those are who lose themselves in their order, nor of convulsions, as those which cramp in matters impertinent; not savouring of perfumes and paintings, as those do who seek to please the reader more than nature beareth; and chiefly well disposed in the spirits thereof, being agreeable to truth and apt for action; and far removed from that natural infirmity, whereunto I noted those that write in their own professions to be subject, which is, that they exalt it above measure: for your majesty hath truly described, not a king of Assyria or Persia in their external glory, but a Moses or a David, pastors of their people. Neither can I ever lose out of my remembrance, what I heard your majesty in the same sacred spirit of government de-

Of the King's own Book.

liver in a great cause of judicature, which was, "That kings ruled by their laws as God "did by the laws of nature; and ought as "rarely to put in use their supreme prero-"gative, as God doth his power of working "miracles." And yet notwithstanding, in your book of a free monarchy, you do well give men to understand, that you know the plenitude of the power and right of a king, as well as the circle of his office and duty. Thus have I presumed to alledge this excellent writing of your majesty, as a prime or eminent example of Tractates concerning special and respective duties; wherein I should have said as much if it had been written a thousand years since: neither am I moved with certain courtly decencies, which esteem it flattery to praise in presence; no, it is flattery to praise in absence, that is, when either the virtue is absent, or the occasion is absent; and so the praise is not natural but forced, either in truth or in time. But let Cicero be read in his oration *pro Marcello*, which is nothing but an excellent table of Cæsar's virtue, and made to his face; besides the example of many other excellent per-

sons wiser a great deal than such observers, and we will never doubt, upon a full occasion, to give just praises to present or absent.

Of the frauds and vices of Professions.

But to return, there belongeth farther to the handling of this part, touching the duties of professions and vocations, a relative or opposite, touching the frauds, cautels, impostures, and vices of every profession, which hath been likewise handled: but how? rather in a satire and cynically, than seriously and wisely: for men have rather sought by wit to deride and traduce much of that which is good in professions, than with judgment to discover and sever that which is corrupt. For, as Solomon saith, he that cometh to seek after knowledge with a mind to scorn and censure, shall be sure to find matter for his humour, but no matter for his instruction: *Quærenti derisori scientiam ipsa se abscondit; sed studioso fit obviam.* But the managing of this argument with integrity and truth, which I note as deficient, seemeth to me to be one of the best fortifications for honesty and virtue that can be planted. For, as the fable goeth of the basilisk, that if he

see you first, you die for it; but if you see him first, he dieth: so is it with deceits and evil arts; which, if they be first espied, lose their life; but if they prevent, they endanger. So that we are much beholden to Machiavel and others, that write what men do, and not what they ought to do: for it is not possible to join serpentine wisdom with the columbine innocency, except men know exactly all the conditions of the serpent; his baseness and going upon his belly, his volubility and lubricity, his envy and sting, and the rest; that is, all forms and natures of evil: for without this, virtue lieth open and unfenced. Nay, an honest man can do no good upon those that are wicked, to reclaim them, without the help of the knowledge of evil: for men of corrupted minds presuppose that honesty groweth out of simplicity of manners, and believing of preachers, school-masters, and men's exterior language: so as, except you can make them perceive that you know the utmost reaches of their own corrupt opinions, they despise all morality; *Non recipit stultus verba prudentiæ, nisi ea dixeris quæ versantur in corde ejus.*

Unto this part touching *respective duty* doth also appertain the duties between husband and wife, parent and child, master and servant: so likewise the laws of friendship and gratitude, the civil bond of companies, colleges, and politic bodies, of neighbourhood, and all other proportionate duties; not as they are parts of government and society, but as to the framing of the mind of particular persons. Of relative duties in general.

The knowledge concerning good respecting society doth handle it also not *simply* alone, but *comparatively;* whereunto belongeth the weighing of duties between person and person, case and case, particular and public: as we see in the proceeding of Lucius Brutus against his own sons, which was so much extolled; yet what was said?

Infelix, utcunque ferent ea fata minores.

So the case was doubtful, and had opinion on both sides. Again, we see when M. Brutus and Cassius invited to a supper certain whose opinions they meant to feel, whether they were fit to be made their associates, and cast forth the question touching the killing of a tyrant being an usurper, they were divided

in opinion; some holding that servitude was the extreme of evils, and others that tyranny was better than a civil war: and a number of the like cases there are of comparative duty amongst which that of all others is the most frequent, where the question is of a great deal of good to ensue of a small injustice, which Jason of Thessalia determined against the truth: *Aliqua sunt injustè facienda, ut multa justè fieri possint.* But the reply is good, *Auctorem præsentis justitiæ habes, sponsorem futuræ non habes;* men must pursue things which are just in present, and leave the future to the divine providence. So then we pass on from this general part touching the exemplar and description of good.

2. Of the culture of the mind.

Now therefore that we have spoken of this fruit of life, it remaineth to speak of the husbandry that belongeth thereunto; without which part the former seemeth to be no better than a fair image, or *statua,* which is beautiful to contemplate, but is without life and motion: whereunto Aristotle himself subscribeth in these words, *Necesse est scilicet de virtute dicere, et quid sit, et ex quibus gignatur. Inutile enim fere fuerit virtutem quidem nosse,*

acquirendæ autem ejus modos et vias ignorare: non enim de virtute tantùm, qua specie sit, quærendum est, sed et quomodo sui copiam faciat; utrumque enim volumus, et rem ipsam nosse, et ejus compotes fieri; hoc autem ex voto non succedet, nisi sciamus et ex quibus et quomodo: in such full words, and with such iteration doth he inculcate this part: so saith Cicero in great commendation of Cato the second, that he had applied himself to philosophy, *non ita disputandi causa, sed ita vivendi.* And although the neglect of our times, wherein few men do hold any consultations touching the reformation of their life, (as Seneca excellently saith, *De partibus vitæ quisque deliberat, de summâ nemo)* may make this part seem superfluous; yet I must conclude with that aphorism of Hippocrates, *Qui gravi morbo correpti dolores non sentiunt, iis mens ægrotat;* they need medicine not only to assuage the disease, but to awake the sense.

Philosophy the handmaid to Divinity.

And if it be said, that the cure of men's minds belongeth to sacred divinity, it is most true: but yet moral philosophy may be preferred unto her as a wise servant and humble handmaid. For as the Psalm saith, that

the eyes of the handmaid look perpetually towards the mistress, and yet no doubt many things are left to the discretion of the handmaid, to discern of the mistress's will; so ought moral philosophy to give a constant attention to the doctrines of divinity, and yet so as it may yield of herself, within due limits, many sound and profitable directions.

This part therefore, because of the excellency thereof, I cannot but find exceeding strange that it is not reduced to written enquiry; the rather, because it consisteth of much matter, wherein both speech and action is often conversant; and such wherein the common talk of men, (which is rare, but yet cometh sometimes to pass,) is wiser than their books. It is reasonable therefore that we propound it in the more particularity, both for the worthiness, and because we may acquit ourselves for reporting it deficient; which seemeth almost incredible, and is otherwise conceived and presupposed by those themselves that have written. We will therefore enumerate some heads or points thereof, that it may appear the better what it is, and whether it be extant.

First, therefore, in this, as in all things which are practical, we ought to cast up our account, what is in our power, and what not; for the one may be dealt with by way of *alteration*, but the other by way of *application* only. The husbandman cannot command, neither the nature of the earth, nor the seasons of the weather; no more can the physician the constitution of the patient, nor the variety of accidents: so in the culture and cure of the mind of man, two things are without our command; points of nature, and points of fortune: for to the basis of the one, and the conditions of the other, our work is limited and tied. In these things therefore, it is left unto us to proceed by application. What can be done in this art.

Vincenda est omnis fortuna ferendo:

and so likewise,

Vincenda est omnis natura ferendo.

But when that we speak of suffering, we do not speak of a dull and neglected suffering, but of a wise and industrious suffering, which draweth and contriveth use and advantage out of that which seemeth adverse and contrary; which is that properly which we call accommodating or applying. Now the wis-

dom of application resteth principally in the exact and distinct knowledge of the precedent state or disposition, unto which we do apply; for we cannot fit a garment, except we first take measure of the body.

Of the characters and tempers of men.

So then the first article of this knowledge is to set down sound and true distributions, and descriptions of the several characters and tempers of men's natures and dispositions; especially having regard to those differences which are most radical, in being the fountains and causes of the rest, or most frequent in concurrence or commixture; wherein it is not the handling of a few of them in passage, the better to describe the mediocrities of virtues, that can satisfy this intention: for if it deserve to be considered, "that there are minds which are proportioned to great matters, and others to small," (which Aristotle handleth or ought to have handled by the name of *magnanimity*,) doth it not deserve as well to be considered, "that there are minds proportioned to intend many matters, and others to few?" So that some can divide themselves; others can perchance do exactly well, but it must be but

in few things at once: and so there cometh to be a narrowness of mind, as well as a pusillanimity. And again, "that some minds "are proportioned to that which may be dis- "patched at once, or within a short return "of time; others to that which begins afar "off, and is to be won with length of & "pursuit,"

Jam tum tenditque fovetque.

So that there may be fitly said to be a *longanimity*, which is commonly also ascribed to God as a *magnanimity*. So farther deserved it to be considered by Aristotle; "that there "is a disposition in conversation, (supposing "it in things which do in no sort touch or "concern a man's self,) to sooth and please; "and a disposition contrary to contradict "and cross:" and deserveth it not much better to be considered, "that there is a "disposition, not in conversation or talk, "but in the matter of more serious nature, "(and supposing it still in things merely in- "different,) to take pleasure in the good of "another, and a disposition contrariwise, to "take distaste at the good of another?" which is that properly which we call *good-*

nature or *ill-nature*, benignity or malignity: and therefore I cannot sufficiently marvel that this part of knowledge, touching the several characters of natures and dispositions, should be omitted both in morality and policy, considering it is of so great ministry and suppeditation to them both. A man shall find in the traditions of astrology some pretty and apt divisions of men's natures, according to the predominances of the planets; lovers of quiet, lovers of action, lovers of victory, lovers of honour, lovers of pleasure, lovers of arts, lovers of change, and so forth. A man shall find in the wisest sort of these relations, which the Italians make touching conclaves, the natures of the several cardinals handsomely and lively painted forth: a man shall meet with, in every day's conference, the denominations of sensitive, dry, formal, real, humourous, certain, *huomo di prima impressione*, *huomo di ultima impressione*, and the like: and yet nevertheless this kind of observations wandereth in words, but is not fixed in enquiry. For the distinctions are found, many of them, but we conclude no precepts upon them: wherein our fault is the

greater, because both history, poesy, and daily experience are as goodly fields where these observations grow; whereof we make a few posies to hold in our hands, but no man bringeth them to the confectionary, that receipts might be made of them for the use of life.

Of much like kind are those impressions of nature, which are imposed upon the mind by the sex, by the age, by the region, by health and sickness, by beauty and deformity, and the like, which are inherent, and not external; and again, those which are caused by external fortune; as sovereignty, nobility, obscure birth, riches, want, magistracy, privateness, prosperity, adversity, constant fortune, variable fortune, rising *per saltum, per gradus,* and the like. And therefore we see that Plautus maketh it a wonder to see an old man beneficent, *benignitas hujus ut adolescentuli est.* St. Paul concludeth, that severity of discipline was to be used to the Cretans, *Increpa eos durè,* upon the disposition of their country, *Cretenses semper mendaces, malæ bestiæ, ventres pigri.* Sallust noteth, that it is usual with kings to desire contradictories; *Sed plerumque regiæ voluntates, ut vehementes*

Of inherent and external impressions.

sunt, sic mobiles, sæpeque ipsæ sibi adversæ. Tacitus observeth how rarely raising of the fortune mendeth the disposition, *Solus Vespasianus mutatus in melius.* Pindarus maketh an observation, that great and sudden fortune for the most part defeateth men, *Qui magnam felicitatem concoquere non possunt.* So the *Psalm* sheweth it is more easy to keep a measure in the enjoying of fortune, than in the increase of fortune; *Divitiæ si affluant, nolite cor apponere.* These observations, and the like, I deny not but are touched a little by Aristotle, as in passage, in his Rhetorics, and are handled in some scattered discourses: but they were never incorporated into moral philosophy, to which they do essentially appertain; as the knowledge of the diversity of grounds and moulds doth to agriculture, and the knowledge of the diversity of complexions and constitutions doth to the physician; except we mean to follow the indiscretion of empirics, which administer the same medicines to all patients.

Of the affections.

Another article of this knowledge is the enquiry touching the affections: for as in medicining of the body, it is in order first to know the divers complexions and constitu-

tions; secondly, the diseases; and lastly, the cures: so in medicining of the mind, after knowledge of the divers characters of men's natures, it followeth, in order, to know the diseases and infirmities of the mind, which are no other than the perturbations and distempers of the affections. For as the ancient politicians in popular states were wont to compare the people to the sea, and the orators to the winds, (because as the sea would of itself be calm and quiet, if the winds did not move and trouble it; so the people would be peaceable and tractable, if the seditious orators did not set them in working and agitation;) so it may be fitly said, that the mind in the nature thereof would be temperate and stayed, if the affections, as winds, did not put it into tumult and perturbation.

Bad method of Aristotle.

And here again I find strange as before, that Aristotle should have written divers volumes of Ethics, and never handled the affections, which is the principal subject thereof; and yet in his Rhetorics, where they are considered but collaterally, and in a second degree, as they may be moved

by speech, he findeth place for them, and handleth them well for the quantity; but where their true place is, he pretermitteth them. For it is not his disputations about pleasure and pain that can satisfy this enquiry, no more than he that should generally handle the nature of light can be said to handle the nature of colours; for pleasure and pain are to the particular affections, as light is to particular colours. Better travels, I suppose, had the Stoics taken in this argument, as far as I can gather by that which we have at second hand. But yet, it is like it was after their manner, rather in subtilty of definitions, (which, in a subject of this nature, are but curiosities,) than in active and ample descriptions and observations. So likewise I find some particular writings of an elegant nature, touching some of the affections; as of anger, of comfort upon adverse accidents, of tenderness of countenance, and other.

Poets and Historians the best teachers of this knowledge.

But the poets and writers of histories are the best doctors of this knowledge; where we may find painted forth with great life how affections are kindled and incited; and

how pacified and refrained; and how again contained from act and farther degree; how they disclose themselves; how they work; how they vary, how they gather and fortify; how they are inwrapped one within another; and how they do fight and encounter one with another; and other the like particularities: amongst the which this last is of special use in moral and civil matters; how, I say, to set affection against affection, and to master one by another; even as we use to hunt beast with beast, and fly bird with bird, which otherwise perhaps we could not so easily recover: upon which foundation is erected that excellent use of *præmium* and *pœna*, whereby civil states consist; employing the predominant affections of fear and hope, for the suppressing and bridling the rest. For as in the government of states it is sometimes necessary to bridle one faction with another, so it is in the government within.

Of things within our power to affect the will and appetite.

Now come we to those points which are within our own command, and have force and operation upon the mind, to affect the will and appetite, and to alter manners:

wherein they ought to have handled custom, exercise, habit, education, example, imitation, emulation, company, friends, praise, reproof, exhortation, fame, laws, books, studies: these as they have determinate use in moralities, from these the mind suffereth; and of these are such receipts and regimens compounded and described, as may serve to recover or preserve the health and good estate of the mind, as far as pertaineth to human medicine; of which number we will insist upon some one or two, as an example of the rest, because it were too long to prosecute all; and therefore we do resume custom and habit to speak of.

Unsound opinion of Aristotle.

The opinion of Aristotle seemeth to me a negligent opinion, that of those things which consist by nature, nothing can be changed by custom; using for example, that if a stone be thrown ten thousand times up, it will not learn to ascend; and that by often seeing or hearing, we do not learn to hear or see the better. For though this principle be true in things wherein nature is peremptory, (the reason whereof we cannot now stand to discuss,) yet it is

otherwise in things wherein nature admitteth a latitude. For he might see that a straight glove will come more easily on with use; and that a wand will by use bend otherwise than it grew; and that by use of the voice we speak louder and stronger; and that by use of enduring heat or cold, we endure it the better, and the like: which latter sort have a nearer resemblance unto that subject of manners he handleth, than those instances which he alledgeth. But allowing his conclusion, that virtues and vices consist in habit, he ought so much the more to have taught the manner of superinducing that habit: for there be many precepts of the wise, ordering the exercises of the mind, as there is of ordering the exercises of the body; whereof we will recite a few.

Precepts how to exercise the mind.

The first shall be, that we beware we take not at the first either too high a strain, or too weak: for if too high, in a diffident nature you discourage; in a confident nature you breed an opinion of facility, and so a sloth; and in all natures you breed a farther expectation than can hold out,

and so an insatisfaction in the end: if too weak, of the other side, you may not look to perform and overcome any great task.

Another precept is to practise all things chiefly at two several times, the one when the mind is best disposed, the other when it is worst disposed; that by the one you may gain a great step, by the other you may work out the knots and stones of the mind, and make the middle times the more easy and pleasant.

Another precept is that which Aristotle mentioneth by the way, which is, to bear ever towards the contrary extreme of that whereunto we are by nature inclined: like unto the rowing against the stream, or making a wand straight, by bending him contrary to his natural crookedness.

Another precept is that the mind is brought to any thing better, and with more sweetness and happiness, if that whereunto you pretend be not first in the intention, but *tanquam aliud agendo;* because of the natural hatred of the mind against necessity and constraint. Many other axioms there are touching the managing of exer-

cise and custom; which being so conducted, doth prove indeed another nature; but being governed by chance, doth commonly prove but an ape of nature, and bringeth forth that which is lame and counterfeit.

So if we should handle books and studies, and what influence and operation they have upon manners, are there not divers precepts of great caution and direction appertaining thereunto? Did not one of the fathers in great indignation call poesy *vinum dæmonum*, because it increaseth temptations, perturbations, and vain opinions? Is not the opinion of Aristotle worthy to be regarded, wherein he saith, "That young men are "no fit auditors of moral philosophy, be- "cause they are not settled from the boil- "ing heat of their affections, nor attemper- "ed with time and experience?" And doth it not hereof come, that those excellent books and discourses of the ancient writers (whereby they have persuaded unto virtue most effectually, by representing her in state and majesty, and popular opinions against virtue in their parasites' coats, fit to be scorned and derided,) are of so little

effect towards honesty of life, because they are not read, and revolved by men in their mature and settled years, but confined almost to boys and beginners? But is it not true also, that much less young men are fit auditors of matters of policy, till they have been thoroughly seasoned in religion and morality; lest their judgments be corrupted, and made apt to think that there are no true differences of things, but according to utility and fortune, as the verse describes it?

Prosperum et felix scelus virtus vocatur

And again,

Ille crucem pretium sceleris tulit, hic diadema:

which the poets do speak satirically, and in indignation on virtue's behalf; but books of policy do speak it seriously and positively: for it so pleaseth Machiavel to say, "that if Cæsar had been overthrown, he "would have been more odious than ever "was Catiline:" as if there had been no difference, but in fortune, between a very fury of lust and blood, and the most excellent spirit (his ambition reserved) of the

world? Again, is there not a caution likewise to be given of the doctrines of moralities themselves, some kinds of them, lest they make men too precise, arrogant, incompatible, as Cicero saith of Cato *In Marco Catone hæc bona quæ videmus divina et egregia, ipsius scitote esse propria; quæ nonnunquam requirimus, ea sunt omnia non à natura, sed à magistro?* Many other axioms and advices there are touching those proprieties and effects, which studies do infuse and instil into manners. And so likewise is there touching the use of all those other points, of company, fame, laws, and the rest, which we recited in the beginning in the doctrine of morality.

The culture of the mind to be regulated by the state of the mind.

But there is a kind of culture of the mind that seemeth yet more accurate and elaborate than the rest, and is built upon this ground; that the minds of all men are sometimes in a state more perfect, and at other times in a state more depraved. The purpose therefore of this practice is to fix and cherish the good hours of the mind, and to obliterate and take forth the evil. The fixing of the good hath been practised by

two means, vows or constant resolutions, and observances or exercises; which are not to be regarded so much in themselves, as because they keep the mind in continual obedience. The obliteration of the evil hath been practised by two means, some kind of redemption or expiation of that which is past, and an inception or account *de novo*, for the time to come: but this part seemeth sacred and religious, and justly; for all good moral philosophy, as was said, is but an handmaid to religion.

The shortest and most effectual way of training the mind to Virtue.

Wherefore we will conclude with that last point, which is of all other means the most compendious and summary, and again, the most noble and effectual to the reducing of the mind unto virtue and good estate; which is the electing and propounding unto a man's self good and virtuous ends of his life, such as may be in a reasonable sort within his compass to attain. For if these two things be supposed, that a man set before him honest and good ends, and again that he be resolute, constant, and true unto them, it will follow that he shall mould himself into all virtue at once. And this

is indeed like the work of nature; whereas the other course is like the work of the hand: for as when a carver makes an image, he shapes only that part whereupon he worketh; (as if he be upon the face, that part which shall be the body is but a rude stone still, till such time as he comes to it;) but, contrariwise, when nature makes a flower or living creature, she formeth rudiments of all the parts at one time: so in obtaining virtue by *habit*, while a man practiseth temperance, he doth not profit much to fortitude, nor the like; but when he dedicateth and applieth himself to *good ends*, look, what virtue soever the pursuit and passage towards those ends doth commend unto him, he is invested of a precedent disposition to conform himself thereunto. Which state of mind Aristotle doth excellently express himself, that it ought not to be called *virtuous* but *divine:* his words are these; *Immanitati autem consentaneum est opponere eam, quæ supra humanitatem est, heroicam sive divinam virtutem:* and a little after, *Nam ut feræ neque vitium neque virtus est, sic neque Dei: sed hic quidem status altius quiddam virtute*

est, ille aliud quiddam à vitio. And therefore we may see what celsitude of honour Plinius Secundus attributeth to Trajan in his funeral oration; where he said, "that "men needed to make no other prayers "to the gods, but that they would con- "tinue as good lords to them as Trajan "had been;" as if he had not been only an imitation of divine nature, but a pattern of it. But these be heathen and profane passages, having but a shadow of that divine state of mind, which religion and the holy faith doth conduct men unto, by imprinting upon their souls *charity,* which is excellently called *the bond of perfection,* because it comprehendeth and fasteneth all virtues together. And as it is elegantly said by Menander of vain love, which is but a false imitation of divine love, *Amor melior sophistá lævo ad humanam vitam,* that love teacheth a man to carry himself better than the sophist or preceptor; which he calleth left-handed, because, with all his rules and precepts, he cannot form a man so dexterously, nor with that facility to prize himself and govern himself, as love

can do: so certainly, if a man's mind be truly inflamed with charity, it doth work him suddenly into greater perfection than all the doctrine of morality can do, which is but a sophist in comparison of the other. Nay farther, as Xenophon observed truly, that all other affections, though they raise the mind, yet they do it by distorting and uncomeliness of ecstasies or excesses; but only love doth exalt the mind, and nevertheless at the same instant doth settle and compose it: so in all other excellencies, though they advance nature, yet they are subject to excess; only charity admitteth no excess: for so we see, by aspiring to be like God in power, the angels transgressed and fell; *Ascendam, et ero similis Altissimo:* by aspiring to be like God in knowledge, man transgressed and fell; *Eritis sicut Dii, scientes bonum et malum:* but by aspiring to a similitude of God in goodness or love, neither man nor angel ever transgressed, or shall transgress. For unto that imitation we are called; *Diligite inimicos vestros, benefacite eis qui oderunt vos, et orate pro persequentibus et calumniantibus vos; ut sitis filii*

Patris vestri qui in cœlis est, qui solem suum oriri facit super bonos et malos, et pluit super justos et injustos. So in the first platform of the divine nature itself, the heathen religion speaketh thus, *Optimus Maximus;* and the sacred Scriptures thus, *Misericordia ejus super omnia opera ejus.*

Conclusion.

Wherefore I do conclude this part of moral knowledge, concerning the culture and regimen of the mind; wherein if any man, considering the parts thereof, which I have enumerated, do judge that my labour is but to collect into an art or science that which hath been pretermitted by others, as matters of common sense and experience, he judgeth well: but as Philocrates sported with Demosthenes, "You may not marvel, "Athenians, that Demosthenes and I do "differ; for he drinketh water, and I drink "wine:"—and like as we read of an ancient parable of the two gates of sleep,

Sunt geminæ somni portæ, quarum altera fertur
Cornea, qua veris facilis datur exitus umbris:
Altera candenti perfecta nitens elephanto,
Sed falsa ad cœlum mittunt insomnia manes.

so if we put on sobriety and attention, we

shall find it a sure maxim in knowledge, that the more pleasant liquor of wine is the more vaporous, and the braver gate of ivory sendeth forth the falser dreams.

But we have now concluded that general part of human philosophy, which contemplateth man segregate, and as he consisteth of body and spirit. Wherein we may farther note, that there seemeth to be a relation or conformity between the good of the mind and the good of the body. For as we divided the good of the body into health, beauty, strength, and pleasure; so the good of the mind, inquired in rational and moral knowledges, tendeth to this, to make the mind sound, and without perturbation; beautiful, and graced with decency; and strong and agile for all duties of life. These three, as in the body, so in the mind, seldom meet, and commonly sever. For it is easy to observe, that many have strength of wit and courage; but have neither health from perturbations, nor any beauty or decency in their doings: some again have an elegancy and fineness of carriage; which have neither soundness of

honesty, nor substance of sufficiency: and some again have honest and reformed minds; that can neither become themselves, nor manage business. And sometimes two of them meet, and rarely all three. As for pleasure, we have likewise determined that the mind ought not to be reduced to stupidity, but to retain pleasure; confined rather in the subject of it, than in the strength and vigour of it.

CIVIL KNOWLEDGE.

Civil Knowledge is conversant about a subject which of all others is most immersed in matter, and hardliest reduced to axiom. Nevertheless, as Cato the censor said, "that "the Romans were like sheep, for that a "man might better drive a flock of them, "than one of them; for in a flock, if you "could get but some few to go right, the rest "would follow:" so in that respect moral philosophy is more difficult than policy. Again, moral philosophy propoundeth to

itself the framing of internal goodness; but civil knowledge requireth only an external goodness; for that as to society sufficeth. And therefore it cometh oft to pass that there be evil times in good governments: for so we find in the holy story, when the kings were good; yet it is added, *Sed adhuc populus non direxerat cor suum ad Dominum Deum patrum suorum.* Again, states, as great engines, move slowly, and are not so soon put out of frame: for as in Egypt the seven good years sustained the seven bad; so governments, for a time well grounded, do bear out errors following: but the resolution of particular persons is more suddenly subverted. These respects do somewhat qualify the extreme difficulty of civil knowledge.

It's three parts.

This knowledge hath three parts, according to the three summary actions of society; which are Conversation, Negotiation, and Government. For man seeketh in society comfort, use, and protection: and they be three wisdoms of divers natures, which do often sever; wisdom of behaviour, wisdom of business, and wisdom of state.

1. Of Conversation.

The wisdom of Conversation ought not to be over much affected, but much less despised: for it hath not only an honor in itself, but an influence also into business and government. The poet saith, *Nec vultu destrue verba tuo.* A man may destroy the force of his words with his countenance: so may he of his deeds, saith Cicero, recommending to his brother affability and easy access, *Nil interest habere ostium apertum, vultum clausum.* "It is nothing won "to admit men with an open door, and "to receive them with a shut and reserved "countenance." So, we see, Atticus, before the first interview between Cæsar and Cicero, the war depending, did seriously advise Cicero touching the composing and ordering of his countenance and gesture. And if the government of the countenance be of such effect, much more is that of the speech, and other carriage appertaining to conversation; the true model whereof seemeth to me well expressed by Livy, though not meant for this purpose; *Ne aut arrogans videar, aut obnoxius; quorum alterum est alienæ libertatis obliti, alterum suæ:* "The sum of behaviour is to retain

" a man's own dignity, without intruding " upon the liberty of others." On the other side, if behaviour and outward carriage be intended too much, first it may pass into affectation, and then *Quid deformius quàm scenam in vitam transferre,* to act a man's life? But although it proceed not to that extreme, yet it consumeth time, and employeth the mind too much. And therefore as we use to advise young students from company keeping, by saying, *Amici fures temporis;* so certainly the intending of the discretion of behaviour is a great thief of meditation. Again, such as are accomplished in that form of urbanity please themselves in it, and seldom aspire to higher virtue; whereas those that have defect in it do seek comeliness by reputation; for where reputation is, almost every thing becometh; but where that is not, it must be supplied by punctilios and compliments. Again, there is no greater impediment of action than an over-curious observance of decency, and the guide of decency, which is time and season. For as Solomon saith, *Qui respicit ad ventos, non seminat; et qui respicit ad nubes, non*

metet: a man must make his opportunity as oft as find it. To conclude; behaviour seemeth to me as a garment of the mind, and to have the conditions of a garment. For it ought to be made in fashion; it ought not to be too curious; it ought to be shaped so as to set forth any good making of the mind, and hide any deformity; and above all, it ought not to be too straight, or restrained for exercise or motion. But this part of civil knowledge hath been elegantly handled, and therefore I cannot report it for deficient.

2. Of negotiation or business.

The wisdom touching Negotiation or Business hath not been hitherto collected into writing, to the great derogation of learning, and the professors of learning. For from this root springeth chiefly that note or opinion, which by us is expressed in adage to this effect, 'that there is no great concur-'rence between learning and wisdom.' For of the three wisdoms which we have set down to pertain to civil life, for wisdom of behaviour, it is by learned men for the most part despised, as an inferior to virtue, and an enemy to mediation; for wisdom of government, they acquit themselves well when

they are called to it, but that happeneth to few; but for the wisdom of business, wherein man's life is most conversant, there be no books of it, except some few scattered advertisements, that have no proportion to the magnitude of this subject. For if books were written of this, as the other, I doubt not but learned men with mean experience, would far excel men of long experience without learning, and outshoot them in theirown bow.

Custom of the Romans.

Neither needeth it at all to be doubted that this knowledge should be so variable as it falleth not under precept; for it is much less infinite than science of government, which, we see, is laboured, and in some part reduced. Of this wisdom, it seemeth, some of the ancient Romans, in the sagest and wisest times, were professors; for Cicero reporteth that it was then in use for senators that had name and opinion for general wise men, as Coruncanius, Curius, Lælius, and many others, to walk at certain hours in the place, and to give audience to those that would use their advice; and that the particular citizens would resort unto them, and consult with them of the

marriage of a daughter, or of the employing of a son, or of a purchase or bargain, or of an accusation, and every other occasion incident to man's life. So as there is a wisdom of counsel and advice even in private cases, arising out of an universal insight into the affairs of the world; which is used indeed upon particular cases propounded, but is gathered by general observation of cases of like nature. For so we see in the book which Q. Cicero writeth to his brother, *De petitione consulatus*, (being the only book of business, that I know, written by the ancients,) although it concerned a particular action then on foot, yet the substance thereof consisteth of many wise and politic axioms, which contain not a temporary, but a perpetual direction in the case of popular elections.

Aphorisms of Solomon.

But chiefly we may see in those aphorisms which have place amongst divine writings, composed by Solomon the king, (of whom the scriptures testify that his heart was as the sands of the sea, encompassing the world and all worldly matters,) we see, I say, not a few profound and excellent

cautions, precepts, positions, extending to much variety of occasions; whereupon we will stay awhile, offering to consideration some number of examples.

Sed et cunctis sermonibus qui dicuntur ne accommodes aurem tuam, ne fortè audias servum tuum maledicentem tibi.

Here is recommended the provident stay of enquiry of that which we would be loth to find: as it was judged great wisdom in Pompeius Magnus that he burned Sertorius's papers unperused.

Vir sapiens, si cum stulto contenderit, sive irascatur, sive rideat, non inveniet requiem.

Here is described the great disadvantage which a wise man hath in undertaking a lighter person than himself; which is such an engagement as, whether a man turn the matter to jest, or turn it to heat, or howsoever he change copy, he can no ways quit himself well of it.

Qui delicatè à pueritia nutrit servum suum, postea sentiet eum contumacem.

Here is signified that if a man begin too high a pitch in his favours, it doth commonly end in unkindness and unthankfulness.

Vidisti virum velocem in opere suo ; coram regibus stabit, nec erit inter ignobiles.

Here is observed that of all virtues for rising to honour quickness of dispatch is the best; for superiors many times love not to have those they employ too deep or too sufficient, but ready and diligent.

Vidi cunctos viventes qui ambulant sub sole, cum adolescente secundo qui consurgit pro eo.

Here is expressed that which was noted by Sylla first, and after him by Tiberius; *Plures adorant solem orientem quàm occidentem vel meridianum.*

Si spiritus potestatem habentis ascenderit super te, locum tuum ne dimiseris, quia curatio faciet cessare peccata maxima.

Here caution is given that upon displeasure retiring is of all courses the unfittest; for a man leaveth things at worst, and depriveth himself of means to make them better.

Erat civitas parva, et pauci in ea viri ; venit contra eam rex magnus, et vadavit eam, instruxitque munitiones per gyrum, et perfecta est obsidio ; inventusque est in ea vir pauper et sapiens, et liberavit eam per sapientiam suam ; et nullus deinceps recordatus est hominis illius pauperis.

Here the corruption of states is set forth, that esteem not virtue or merit longer than they have use of it.

Mollis responsio frangit iram.

Here is noted that silence or rough answer exasperateth; but an answer present and temperate pacifieth.

Iter pigrorum quasi sepes spinarum.

Here is lively represented how laborious sloth proveth in the end; for when things are deferred to the last instant, and nothing prepared beforehand, every step findeth a brier or an impediment, which catcheth or stoppeth.

Melior est finis orationis quàm principium.

Here is taxed the vanity of formal speakers, that study more about prefaces and inducements than upon the conclusions and issues of speech.

Qui cognoscit in judicio faciem, non bene facit; iste et pro buccella panis deseret veritatem.

Here is noted that a judge were better be a briber than a respecter of persons; for a corrupt judge offendeth not so lightly as a facile.

Vir pauper calumnians pauperes similis est imbri vehementi in quo paratur fames.

Here is expressed the extremity of necessitous extortions, figured in the ancient fable of the full and the hungry horse-leech.

Fons turbatus pede, et vena corrupta, est justus cadens coram impio.

Here is noted that one judicial and exemplar iniquity in the face of the world doth trouble the fountains of justice more than many particular injuries passed over by connivance.

Qui subtrahit aliquid à patre et à matre, et dicit hoc non esse peccatum, particeps est homicidii.

Here is noted that whereas men in wronging their best friends use to extenuate their fault, as if they might presume or be bold upon them, it doth contrariwise indeed aggravate their fault, and turneth it from injury to impiety.

Noli esse amicus homini iracundo, nec ambulato cum homine furioso.

Here caution is given that in the election of our friends we do principally avoid those

which are impatient, as those that will espouse us to many factions and quarrels.

Qui conturbat domum suam, possidebit ventum.

Here is noted that in domestical separations and breaches men do promise to themselves quieting of their mind and contentment; but still they are deceived of their expectation, and it turneth to wind.

Filius sapiens lætificat patrem: filius vero stultus mœstitia es matri suæ.

Here is distinguished that fathers have most comfort of the good proof of their sons, but mothers have most discomfort of their ill proof; because women have little discerning of virtue, but of fortune.

Qui celat delictum, quærit amicitiam; sed qui altero sermone repetit, separat fœderatos.

Here caution is given that reconcilement is better managed by an amnesty, and passing over that which is past, than by apologies and excusations.

In omni opere bono erit abundantia; ubi autem verba sunt plurima, ibi frequenter egestas.

Here is noted that words and discourse abound most where there is idleness and want.

Primus in sua causa justus; sed venit altera pars, et inquirit in eum.

Here is observed that in all causes the first tale possesseth much, in such sort, that the prejudice thereby wrought will be hardly removed, except some abuse or falsity in the information be detected.

Verba bilinguis quasi simplicia, et ipsa perveniunt ad interiora ventris.

Here is distinguished that flattery and insinuation, which seemeth set and artificial, sinketh not far; but that entereth deep which hath shew of nature, liberty, and simplicity.

Qui erudit derisorem, ipse sibi injuriam facit; et qui arguit impium, sibi maculam generat.

Here caution is given how we tender reprehension to arrogant and scornful natures, whose manner is to esteem it for contumely, and accordingly to return it.

Da sapienti occasionem, et addetur et sapientia.

Here is distinguished the wisdom brought into habit, and that which is verbal, and swimming only in conceit; for the one upon the occasion presented is quickened and redoubled, the other is amazed and confused.

Quomodo in aquis resplendent vultus prospicientium, sic corda hominum manifesta sunt prudentibus.

Here the mind of a wise man is compared to a glass, wherein the images of all diversity of natures and customs are represented, from which representation proceedeth that application,

Qui sapit, innumeris moribus aptus erit.

Thus have I staid somewhat longer upon these sentences politic of Solomon than is agreeable to the proportion of an example; led with a desire to give authority to this part of knowledge, which I noted as deficient, by so excellent a precedent; and have also attended them with brief observations, such as to my understanding offer no violence to the sense, though I know they may be applied to a more divine use: but it is allowed even in divinity that some interpretations, yea and some writings, have more of the eagle than others; but taking them as instructions for life, they might have received large discourse, if I would have broken them and illustrated them by deducements and examples.

Antiquity and use of aphorisms.

Neither was this in use only with the Hebrews, but it is generally to be found in the wisdom of the more ancient times; that as men found out any observation that they thought was good for life, they would gather it and express it in *parable*, or *aphorism*, or *fable*. But for fables, they were vicegerents and supplies where examples failed: now that the times abound with history, the aim is better when the mark is alive. And therefore the form of writing, which of all others is the fittest for this variable argument of negociation and occasion, is that which Machiavel chose wisely and aptly for government; namely, discourse upon histories or examples: for knowledge drawn freshly, and in our view, out of particulars, knoweth the way best to particulars again; and it hath much greater life for practice when the discourse attendeth upon the example, than when the example attendeth upon the discourse. For this is no point of order, as it seemeth at first, but of substance: for when the example is the ground, being set down in an history at large, it is set down with all circumstances, which may sometimes control the

discourse thereupon made, and sometimes supply it as a very pattern for action; whereas the examples alledged for the discourse's sake are cited succinctly, and without particularity, and carry a servile aspect toward the discourse which they are brought in to make good.

Use of Letters above either Chronicles or Lives.

But this difference is not amiss to be remembered, that as history of *times* is the best ground for discourse of government, such as Machiavel handleth, so history of *lives* is the most proper for discourse of business, because it is more conversant in private actions. Nay, there is a ground of discourse for this purpose fitter than them both, which is discourse upon *letters;* such as are wise and weighty, as many are of Cicero *ad Atticum,* and others. For letters have a great and more particular representation of business than either chronicles or lives. Thus have we spoken both of the matter and form of this part of civil knowledge, touching negociation, which we note to be deficient.

Difference of wisdom in counsel and in conduct.

But yet there is another part of this part, which differeth as much from that whereof we have spoken as *sapere* and *sibi sapere;*

the one moving as it were to the circumference, the other to the centre: for there is a wisdom of counsel, and again there is a wisdom of pressing a man's own fortune; and they do sometimes meet, and often sever: for many are wise in their own ways that are weak for government or counsel; like ants, which are wise creatures for themselves, but very hurtful for the garden. This wisdom the Romans did take much knowledge of: *Nam pol sapiens,* saith the comical poet, *fingit fortunam sibi;* and it grew to an adage, *Faber quisque fortunæ propriæ:* and Livy attributeth it to Cato the first, *in hoc viro tanta vis animi et ingenii inerat ut quocunque loco natus esset, sibi ipse fortunam facturus videretur.*

This conceit or position, if it be too much declared and professed, hath been thought a thing impolitic and unlucky, as was observed in Timotheus the Athenian; who having done many great services to the estate in his government, and giving an account thereof to the people, as the manner was, did conclude every particular with this clause, "and in this fortune had no part." And it came to

pass that he never prospered in any thing he took in hand afterwards; for this is too high and too arrogant, savouring of that which Ezekiel saith of Pharaoh, *Dicis, Fluvius est meus, et ego feci memetipsum;* or of that which another prophet speaketh, that *men offer sacrifices to their nets and snares;* and that which the poet expresseth,

Dextra mihi Deus, et telum, quod missile libro,
Nunc adsint:

for these confidences were ever unhallowed, and unblessed: and therefore those that were great politicians indeed ever ascribed their successes to their felicity, and not to their skill or virtue. For so Sylla surnamed himself *Felix* not *Magnus:* so Cæsar said to the master of the ship, *Cæsarem portas et fortunam ejus.*

But yet nevertheless these positions, *Faber quisque fortunæ suæ: Sapiens dominabitur astris: Invia virtuti nulla est via,* and the like, being taken and used as spurs to industry; and not as stirrups to insolency, rather for resolution than for presumption or outward declaration, have been ever thought sound and good; and are, no question, imprinted

in the greatest minds, who are so sensible of this opinion, as they can scarce contain it within: As we see in Augustus Cæsar, (who was rather diverse from his uncle, than inferior in virtue,) how when he died, he desired his friends about him to give him a *Plaudite*, as if he were conscious to himself that he had played his part well upon the stage.

Of prudential wisdom or the art of rising in the world.

This part of knowledge we do report also as deficient; not but that it is practised too much, but it hath not been reduced to writing. And therefore lest it should seem to any that it is not comprehensible by axiom, it is requisite, as we did in the former, that we set down some heads or passages of it.

Wherein it may appear at the first a new and unwonted argument to teach men how to raise and make their fortune; a doctrine wherein every man perchance will be ready to yield himself a disciple, till he seeth difficulty: for fortune layeth as heavy impositions as virtue; and it is as hard and severe a thing to be a true politician, as to be truly moral. But the handling thereof concerneth learning greatly, both in honour and in substance: in honour, because pragmatical men

may not go away with an opinion that learning is like a lark, that can mount, and sing, and please herself, and nothing else; but may know that she holdeth as well of the hawk, that can soar aloft, and can also descend and strike upon the prey: in substance, because it is the perfect law of enquiry of truth, "that nothing be in the globe "of matter, which should not be likewise in the globe of chrystal, or form;" that is, that there be not any thing in being and action, which should not be drawn and collected into contemplation and doctrine. Neither doth learning admire or esteem of this architecture of fortune otherwise than as of an inferior work: for no man's fortune can be an end worthy of his being; and many times the worthiest men do abandon their fortune willingly for better respects: but nevertheless fortune, as an organ of virtue and merit, deserveth the consideration.

The highest precept of this art.

First therefore, the precept which I conceive to be most summary towards the prevailing in fortune, is to obtain that window which Momus did require; who seeing in the frame of man's heart such angles and re-

cesses, found fault there was not a window to look into them; that is to procure good informations of particulars touching persons, their natures, their desires and ends, their customs and fashions, their helps and advantages, and whereby they chiefly stand; so again their weaknesses and disadvantages, and where they lie most open and obnoxious; their friends, factions, and dependencies; and again their opposites, enviers, competitors, their moods and times, *Sola viri molles aditus et tempora noras;* their principles, rules. and observations, and the like; and this not only of persons, but of actions; what are on foot from time to time, and how they are conducted, favoured, opposed, and how they import, and the like. For the knowledge of present actions is not only material in itself, but without it also the knowledge of persons is very erroneous: for men change with the actions, and whilst they are in pursuit they are one, and when they return to their nature they are another. These informations of particulars, touching persons and actions, are as the minor propositions in every active syllogism; for no excellency of obser-

vations, which are as the major propositions, can suffice to ground a conclusion, if there be error and mistaking in the minors.

That this knowledge is possible Solomon is our surety; who saith, *Consilium in corde viri tanquam aqua profunda, sed vir prudens exhauriet illud:* And although the knowledge itself falleth not under precept, because it is of individuals, yet the instructions for the obtaining of it may.

Instructions for obtaining a knowledge of men.

We will begin therefore with this precept, according to the ancient opinion, that the sinews of wisdom are slowness of belief and distrust: that more trust be given to countenances and deeds than to words; and in words, rather to sudden passages and surprised words than to set and purposed words. Neither let that be feared which is said, *fronti nulla fides;* which is meant of a general outward behaviour, and not of the private and subtile motions and labours of the countenance and gesture; which, as Q. Cicero elegantly saith, is *animi janua,* "the "gate of the mind." None more close than Tiberius, and yet Tacitus saith of Gallus, *Etenim vultu offensionem conjectaverat.* So

again, noting the differing character and manner of his commending Germanicus and Drusus in the senate, he saith, touching his fashion wherein he carried his speech of Germanicus, thus; *Magis in speciem adornatis verbis, quàm ut penitùs sentire videretur;* but of Drusus thus, *Paucioribus, sed intentior, et fidâ oratione:* and in another place, speaking of his character of speech, when he did any thing that was gracious and popular, he saith, that in other things he was *velut eluctantium verborum:* but then again, *solutiùs vero loquebatur quando subveniret.* So that there is no such artificer of dissimulation, nor no such commanded countenance, *vultus jussus,* that can sever from a feigned tale some of these fashions, either a more slight and careless fashion, or more set and formal, or more tedious and wandering, or coming from a man more drily and hardly.

Of Deeds.

Neither are deeds such assured pledges, as that they may be trusted without a judicious consideration of their magnitude and nature: *Fraus sibi in parvis fidem præstruit, ut majore emolumento fallat:* and the Italian thinketh himself upon the point to be bought

and sold, when he is better used than he was wont to be, without manifest cause. For small favours, they do but lull men asleep, both as to caution and as to industry, and are, as Demosthenes calleth them, *Alimenta socordiæ*. So again we see how false the nature of some deeds are, in that particular which Mutianus practised upon Antonius Primus, upon that hollow and unfaithful reconcilement which was made between them: whereupon Mutianus advanced many of the friends of Antonius: *simul amicis ejus præfecturas et tribunatus largitur:* wherein, under pretence to strengthen him, he did desolate him, and won from him his dependences.

As for words, though they be like waters to physicians, full of flattery and uncertainty, yet they are not to be despised, specially with the advantage of passion and affection. For so we see Tiberius, upon a stinging and incensing speech of Agrippina, came a step forth of his dissimulation, when he said, "You are hurt, because you do "not reign;" of which Tacitus saith, *Audita hæc raram occulti pectoris vocem elicuere, correptamque Græco versu admonuit: ideo lædi,* Of Words.

quia non regnaret. And therefore the poet doth elegantly call passions, tortures, that urge men to confess their secrets:

Vino tortus et irâ.

And experience sheweth, there are few men so true to themselves and so settled, but that, sometimes upon heat, sometimes upon bravery, sometimes upon kindness, sometimes upon trouble of mind and weakness, they open themselves; specially if they be put to it with a counter-dissimulation, according to the proverb of Spain, *Di mentira, y sacaras verdad,* "Tell a lie, and find a "truth."

Of knowing men by Report.

As for the knowing of men, which is at second hand from reports; men's weaknesses and faults are best known from their enemies, their virtues and abilities from their friends, their customs and times from their servants, their conceits and opinions from their familiar friends, with whom they discourse most. General fame is light, and the opinions conceived by superiors or equals are deceitful; for to such men are more masked, *Verior fama è domesticis emanat.*

But the soundest disclosing and expound-

ing of men is by their natures and ends; wherein the weakest sort of men are best interpreted by their natures, and the wisest by their ends. For it was both pleasantly and wisely said, though I think very untruly, by a nuncio of the pope, returning from a certain nation where he served as lieger; whose opinion being asked touching the appointment of one to go in his place, he wished that in any case they did not send one that was too wise; because no very wise man would ever imagine what they in that country were like to do: and certainly it is an error frequent for men to shoot over, and to suppose deeper ends, and more compass-reaches than are: the Italian proverb being elegant, and for the most part true,

Different Tests to try the wise and the weak.

Di danari, di senno, e di fede,
C'è ne manco che non credi:

"There is commonly less money, less wis-
"dom, and less good faith, than men do
"account upon."

But princes, upon a far other reason, are best interpreted by their natures, and private persons by their ends: for princes being at the top of human desires, they have

Test of Princes and private men.

for the most part no particular ends whereto they aspire, by distance from which a man might take measure and scale of the rest of their actions and desires; which is one of the causes that maketh their hearts more inscrutable. Neither is it sufficient to inform ourselves in men's ends and natures, of the variety of them only, but also of the predominancy, what humour reigneth most, and what end is principally sought. For so we see, when Tigellinus saw himself out-stripped by Petronius Turpilianus in Nero's humors of pleasures, *metus ejus rimatur*, he wrought upon Nero's fears, whereby he broke the other's neck.

Three Rules especially to be observed in this art.

But to all this part of enquiry the most compendious way resteth in three things: the first, to have general acquaintance and inwardness with those which have general acquaintance and look most into the world; and especially according to the diversity of business, and the diversity of persons, to have privacy and conversation with some one friend at least, which is perfect and well intelligenced in every several kind. The second is, to keep a good mediocrity in liberty of speech and

secrecy: in most things liberty; secrecy where it importeth: for liberty of speech inviteth and provoketh liberty to be used again, and so bringeth much to a man's knowledge; and secrecy, on the other side, nduceth trust and inwardness. The last is the reducing of a man's self to this watchful and serene habit, as to make account and purpose, in every conference and action, as well to observe as to act. For as Epictetus would have a philosopher in every particular action to say to himself, *Et hoc volo, et etiam institutum servare;* so a politic man in every thing should say to himself, *Et hoc volo, ac etiam aliquid addiscere.* I have stayed the longer upon this precept of obtaining good information, because it is a main part by itself, which answereth to all the rest. But above all things caution must be taken that men have a good stay and hold of themselves, and that this much knowing do not draw on much meddling; for nothing is more unfortunate than light and rash intermeddling in many matters. So that this variety of knowledge tendeth in conclusion but only to this, to make a better and freer

choice of those actions which may concern us, and to conduct them with the less error and the more dexterity.

How men should examine and learn to understand themselves.

The second precept concerning this knowledge, is for men to make good information touching their own persons, and well to understand themselves: knowing that, as St. James saith, though men look oft in a glass, yet they do suddenly forget themselves; wherein as the divine glass is the word of God, so the politic glass is the state of the world, or times wherein we live, in the which we are to behold ourselves.

For men ought to take an impartial view of their own abilities and virtues; and again of their wants and impediments; accounting these with the most, and those other with the least; and from this view and examination to frame the considerations following.

First, to consider how the constitution of their nature sorteth with the general state of the times; which if they find agreeable and fit, then in all things to give themselves more scope and liberty; but if differing and dissonant, then in the whole

course of their life to be more close, retired, and reserved: as we see in Tiberius, who was never seen at a play, and came not into the senate in twelve of his last years; whereas Augustus Cæsar lived ever in men's eyes, which Tacitus observeth; *Alia Tiberio morum via.*

Secondly, to consider how their nature sorteth with professions and courses of life, and accordingly to make election, if they be free; and, if engaged, to make the departure at the first opportunity: as we see was done by duke Valentine, that was designed by his father to a sacerdotal profession, but quitted it soon after in regard of his parts and inclination; being such nevertheless as a man cannot tell well whether they were worse for a prince or for a priest.

Thirdly, to consider how they sort with those whom they are like to have competitors and concurrents; and to take that course wherein there is most solitude, and themselves like to be most eminent: as Julius Cæsar did, who at first was an orator or pleader; but when he saw the excellency of

Cicero, Hortensius, Catulus, and others, for eloquence, and saw there was no man of reputation for the wars but Pompeius, upon whom the state was forced to rely, he forsook his course begun toward a civil and popular greatness, and transferred his designs to a martial greatness.

Fourthly, in the choice of their friends and dependences, to proceed according to the composition of their own nature; as we may see in Cæsar; all whose friends and followers were men active and effectual, but not solemn, or of reputation.

Fifthly, to take special heed how they guide themselves by examples, in thinking they can do as they see others do; whereas perhaps their natures and carriages are far differing. In which error it seemeth Pompey was, of whom Cicero saith, that he was wont often to say, *Sylla potuit, ego non potero?* Wherein he was much abused; the natures and proceedings of himself and his example being the unlikest in the world; the one being fierce, violent, and pressing the fact; the other solemn, and full of majesty and circumstance; and therefore the less effectual.

But this precept touching the politic knowledge of ourselves, hath many other branches whereupon we cannot insist.

How men should open and reveal themselves.

Next to the well understanding and discerning of a man's self, there followeth the well opening and revealing a man's self; wherein we see nothing more usual than for the more able man to make the less shew. For there is a great advantage in the well setting forth of a man's virtues, fortunes, merits; and again, in the artificial covering of a man's weaknesses, defects, disgraces; staying upon the one, sliding from the other; cherishing the one by circumstances, gracing the other by exposition, and the like; wherein we see what Tacitus saith of Mutianus, who was the greatest politician of his time, *Omnium quæ dixerat feceratque arte quadam ostentator;* which requireth indeed some art, lest it turn tedious and arrogant; but yet so, as ostentation, though it be to the first degree of vanity, seemeth to me rather a vice in manners than in policy: for as it is said, *Audacter calumniare, semper aliquid hæret;* so, except it be in a ridiculous degree of deformity, *Audac-*

ter te vendita, semper aliquid hæret. For it will stick with the more ignorant and inferior sort of men, though men of wisdom and rank do smile at it, and despise it; and yet the authority won with many doth countervail the disdain of a few. But if it be carried with decency and government, as with a natural, pleasant, and ingenuous fashion; or at times when it is mixed with some peril and unsafety, as in military persons; or at times when others are most envied; or with easy and careless passage to it and from it, without dwelling too long, or being too serious; or with an equal freedom of taxing a man's self, as well as gracing himself; or by occasion of repelling or putting down others injury or insolence; it doth greatly add to reputation: and surely not a few solid natures that want this ventosity, and cannot sail in the height of the winds, are not without some prejudice and disadvantage by their moderation.

How Virtue is disvalued and imbased.

But for these flourishes and enhancements of virtue, as they are not perchance unnecessary, so it is at least necessary that virtue be not disvalued and imbased under the just

price; which is done in three manners: by offering and obtruding a man's self; wherein men think he is rewarded, when he is accepted: by doing too much; which will not give that which is well done leave to settle, and in the end induceth satiety: and by finding too soon the fruit of a man's virtue, in commendation, applause, honour, favour; wherein if a man be pleased with a little, let him hear what is truly said; *Cave ne insuetus rebus majoribus videaris, si hæc te res parva sicuti magna delectat.*

How to cover Defects.

But the covering of defects is of no less importance than the valuing of good parts: which may be done likewise in three manners, by caution, by colour, and by confidence. Caution is, when men do ingeniously and discreetly avoid to be put into those things for which they are not proper: whereas contrariwise, bold and unquiet spirits will thrust themselves into matters without difference, and so publish and proclaim all their wants: colour is, when men make a way for themselves, to have a construction made of their faults or wants, as proceeding from a better cause, or intended

for some other purpose: for of the one it is well said,

Sæpe latet vitium proximitate boni.

and therefore whatsoever want a man hath, he must see that he pretend the virtue that shadoweth it; as if he be dull, he must affect gravity: if a coward, mildness; and so the rest: for the second, a man must frame some probable cause why he should not do his best; and why he should dissemble his abilities; and for that purpose must use to dissemble those abilities which are notorious in him, to give colour that his true wants are but industries and dissimulations. For confidence, it is the last but surest remedy; namely, to depress and seem to despise whatsoever a man cannot attain; observing the good principle of the merchants, who endeavour to raise the price of their own commodities, and to beat down the price of others. But there is a confidence that passeth this other; which is, to face out a man's own defects, in seeming to conceive that he is best in those things wherein he is failing; and, to help that again, to seem on the other

side that he hath least opinion of himself in those things wherein he is best; like as we shall see it commonly in poets, that if they shew their verses, and you except to any, they will say, "that that line cost "them more labour than any of the rest;" and presently will seem to disable and suspect rather some other line, which they know well enough to be the best in the number. But above all, in this righting and helping of a man's self in his own carriage, he must take heed he shew not himself dismantled, and exposed to scorn and injury, by too much sweetness, goodness, and facility of nature; but shew some sparkles of liberty, spirit, and edge: which kind of fortified carriage, with a ready rescuing of a man's self from scorns, is sometimes of necessity imposed upon men by somewhat in their person or fortune; but it ever succeedeth with good felicity.

Of Pliancy and Versatility.

Another precept of this knowledge is, by all possible endeavour to frame the mind to be pliant and obedient to occasion; for nothing hindereth men's fortunes so much as this; *Idem manebat, neque idem decebat*; men are where they were, when occasions

turn: and therefore to Cato, whom Livy maketh such an architect of fortune, he addeth, that he had *versatile ingenium*. And thereof it cometh that these grave solemn wits, which must be like themselves, and cannot make departures, have more dignity than felicity. But in some it is nature to be somewhat viscous and inwrapped, and not easy to turn: in some it is a conceit, that is almost a nature, which is, that men can hardly make themselves believe that they ought to change their course, when they have found good by it in former experience. For Machiavel noteth wisely, how Fabius Maximus would have been temporizing still, according to his old bias, when the nature of the war was altered, and required hot pursuit. In some other it is want of point and penetration in their judgment, that they do not discern when things have a period, but come in too late after the occasion; as Demosthenes compareth the people of Athens to country fellows, when they play in a fence school that if they have a blow, then they remove the weapon to that ward, and not before. In some other it is a lothness to lose labours

passed, and a conceit that they can bring about occasions to their ply; and yet in the end, when they see no other remedy, then they come to it with disadvantage: as Tarquinius, that gave for the third part of Sibylla's books the treble price, when he might at first have had all three for the simple. But from whatsoever root or cause this restiveness of mind proceedeth, it is a thing most prejudicial; and nothing is more politic than to make the wheels of our mind concentric and voluble with the wheels of fortune.

Of the moderate use of occasions.

Another precept of this knowledge, which hath some affinity with that we last spoke of, but with difference, is that which is well expressed, *fatis accede deisque;* that men do not only turn with the occasions, but also run with the occasions, and not strain their credit or strength to over-hard or extreme points; but choose in their actions that which is most passable: for this will preserve men from foil, not occupy them too much about one matter, win opinion of moderation, please the most, and make a shew of a perpetual felicity in all they undertake;

which cannot but mightily increase reputation.

Of making and following occasions.

Another part of this knowledge seemeth to have some repugnancy with the former two, but not as I understand it; and it is that which Demosthenes uttereth in high terms; *Et quemadmodum receptum est, ut exercitum ducat imperator, sic et à cordatis viris res ipsæ ducendæ; ut quæ ipsis videntur, ea gerantur, et non ipsi eventus tantùm persequi cogantur.* For, if we observe, we shall find two differing kinds of sufficiency in managing of business: some can make use of occasions aptly and dextrously, but plot little; some can urge and pursue their own plots well, but cannot accommodate nor take in; either of which is very imperfect without the other.

Of reserve and openness.

Another part of this knowledge is the observing a good mediocrity in the declaring, or not declaring a man's self: for although depth of secrecy, and making way, *qualis est via navis in mari,* (which the French calleth *sourdes menées,* when men set things in work without opening themselves at all,) be sometimes both prosperous and admirable, yet

many times *Dissimulatio errores parit, qui dissimulatorem ipsum illaqueant.* And therefore, we see the greatest politicians have in a natural and free manner professed their desires, rather than been reserved and disguised in them: for so we see that Lucius Sylla made a kind of profession, "that he wished all "men happy or unhappy, as they stood his "friends or enemies." So Cæsar, when he first went into Gaul, made no scruple to profess, "that he had rather be first in a village, "than second at Rome," So again, as soon as he had begun the war, we see what Cicero saith of him, *Alter* (meaning of Cæsar) *non recusat, sed quodammodo postulat ut, ut est, sic appelletur tyrannus.* So we may see in a letter of Cicero to Atticus, that Augustus Cæsar, in his very entrance into affairs, when he was a darling of the senate, yet in his harangues to the people would swear,—*Ita parentis honores consequi liceat,* which was no less than the tyranny; save that, to help it, he would stretch forth his hand towards a statue of Cæsar's, that was erected in the place: and men laughed, and wondered, and said,—Is it possible, or did you ever hear

the like? and yet thought he meant no hurt; he did it so handsomely and ingenuously. And all these were prosperous: whereas Pompey, who tended to the same end, but in a more dark and dissembling manner, (as Tacitus saith of him, *Occultior, non melior,* wherein Sallust concurreth, *ore probo, animo inverecundo,)* made it his design, by infinite secret engines, to cast the state into an absolute anarchy and confusion that the state might cast itself into his arms for necessity and protection, and so the sovereign power be put upon him, and he never seen in it: and when he had brought it, as he thought, to that point when he was chosen consul alone, as never any was, yet he could make no great matter of it, because men understood him not; but was fain in the end to go the beaten track of getting arms into his hands, by colour of the doubt of Cæsar's designs: so tedious, casual, and unfortunate are these deep dissimulations; whereof, it seemeth, Tacitus made this judgment, that they were a cunning of an inferior form in regard of true policy; attributing the one to Augustus, the other to Tiberius, where,

speaking of Livia, he saith, *Et cum artibus mariti simulatione filii bene composita;* for surely the continual habit of dissimulation is but a weak and sluggish cunning, and not greatly politic.

Of the proportion and value of things to particular ends.

Another precept of this architecture of fortune is to accustom our minds to judge of the proportion or value of things, as they conduce and are material to our particular ends; and that to do substantially and not superficially. For we shall find the logical part, as I may term it, of some men's minds good, but the mathematical part erroneous; that is, they can well judge of consequences, but not of porportions and comparisons, preferring things of shew and sense before things of substance and effect. So some fall in love with access to princes, others with popular fame and applause, supposing they are things of great purchase; when in many cases they are but matters of envy, peril, and impediment.

So some measure things according to the labor and difficulty, or assiduity, which are spent about them; and think if they be ever moving, that they must needs advance and

proceed: as Cæsar saith in a despising manner of Cato the second, when he describeth how laborious and indefatigable he was to no great purpose; *Hæc omnia magno studio agebat.* So in most things men are ready to abuse themselves in thinking the greatest means to be best, when it should be the fittest.

Of marshalling our pursuits.

As for the true marshalling of men's pursuits towards their fortune, as they are more or less material, I hold them to stand thus: first, the amendment of their own minds; for the remove of the impediments of the mind will sooner clear the passages of fortune, than the obtaining fortune will remove the impediments of the mind. In the second place I set down wealth and means; which I know most men would have placed first, because of the general use which it beareth towards all variety of occasions: but that opinion I may condemn with like reason as Machiavel doth that other, that moneys were the sinews of the wars; whereas, saith he, the true sinews of the wars are the sinews of men's arms, that is, a valiant, populous, and military nation: and he vouch-

eth aptly the authority of Solon who, when Crœsus shewed him his treasury of gold, said to him, that if another came that had better iron, he would be master of his gold. In like manner it may be truly affirmed that it is not moneys that are the sinews of fortune, but it is the sinews and steel of men's minds, wit, courage, audacity, resolution, temper, industry, and the like. In the third place I set down reputation, because of the peremptory tides and currents it hath; which, if they be not taken in their due time, are seldom recovered, it being extreme hard to play an after-game of reputation. And lastly I place honour, which is more easily won by any of the other three, much more by all, than any of them can be purchased by honour.

To conclude this precept, as there is order and priority in matter, so is there in time, the preposterous placing whereof is one of the commonest errors; while men fly to their ends when they should intend their beginnings, and do not take things in order of time as they come on, but marshal them according to greatness, and not according to

instance; not observing the good precept, *Quod nunc instat agamus.*

Another precept of this knowledge is not to embrace any matters which do occupy too great a quantity of time, but to have that sounding in a man's ears, *Sed fugit interea, fugit irreparabile tempus:* and that is the cause why those which take their course of rising by professions of burden, as lawyers, orators, painful divines, and the like, are not commonly so politic for their own fortune, otherwise than in their ordinary way, because they want time to learn particulars, to wait occasions, and to devise plots.

To interlace business, and not mind actions severally.

Another precept of this knowledge is to imitate nature, which doth nothing in vain; which surely a man may do if he do well interlace his business, and bend not his mind too much upon that which he principally intendeth. For a man ought in every particular action so to carry the motions of his mind, and so to have one thing under another, as if he cannot have that he seeketh in the best degree, yet to have it in a second, or so in a third: and if he can have no part of that which he purposed, yet to turn the use of

it to somewhat else; and if he cannot make any thing of it for the present, yet to make it as a seed of somewhat in time to come; and if he can contrive no effect or substance from it, yet to win some good opinion by it, or the like. So that he should exact an account of himself of every action, to reap somewhat, and not to stand amazed and confused, if he fail of that he chiefly meant: for nothing is more impolitic than to mind actions wholly one by one; for he that doth so loseth infinite occasions which intervene, and are many times more proper and propitious for somewhat that he shall need afterwards than for that which he urgeth for the present; and therefore men must be perfect in that rule, *Hæc oportet facere, et illa non omittere.*

To keep a retreat.

Another precept of this knowledge is not to engage a man's self peremptorily in any thing, though it seem not liable to accident, but ever to have a window to fly out at, or a way to retire; following the wisdom in the ancient fable of the two frogs, which consulted when their plash was dry whither they should go; and the one moved to go down

into a pit, because it was not likely the water would dry there; but the other answered, "True, but if it do, how shall we get out "again?"

To be cautious and moderate in friendship.

Another precept of this knowledge is that ancient precept of Bias, construed not to any point of perfidiousness, but only to caution and moderation, *Et ama tanquam inimicus futurus, et odi tanquam amaturus:* for it utterly betrayeth all utility for men to embark themselves too far in unfortunate friendships, troublesome spleens, and childish and humorous envies or emulations.

Importance of these precepts.

But I continue this beyond the measure of an example; led, because I would not have such knowledges, which I note as deficient, to be thought things imaginative, or in the air, or an observation or two much made of, but things of bulk and mass, whereof an end is hardlier made than a beginning. It must be likewise conceived that in those points which I mention and set down, they are far from complete tractates of them, but only as small pieces for patterns: and lastly, no man, I suppose, will think that I mean fortunes are not obtained without all this ado;

for I know they come tumbling into some men's laps; and a number obtain good fortunes by diligence in a plain way, little intermeddling, and keeping themselves from gross errors.

But as Cicero, when he setteth down an idea of a perfect orator, doth not mean that every pleader should be such; and so likewise, when a prince or a courtier hath been described by such as have handled those subjects, the mould hath used to be made according to the perfection of the art and not according to common practice; so I understand it, that it ought to be done in the description of a politic man, I mean politic for his own fortune.

Of dishonest Arts.

But it must be remembered all this while, that the precepts which we have set down are of that kind which may be counted and called *bonæ artes*. As for evil arts, if a man would set down for himself that principle of Machiavel; "that a man seek not to attain virtue itself, but the appearance only thereof; "because the credit of virtue is a help, but "the use of it is cumber:" or that other of his principles; "that he presuppose that

" men are not fitly to be wrought otherwise " but by fear; and therefore that he seek to " have every man obnoxious, low, and in " strait," which the Italians call *seminar spine*, to sow thorns: or that other principle, contained in the verse which Cicero citeth, *Cadant amici, dummodo inimici intercidant*, as the Triumvirs, which sold, every one to other, the lives of their friends for the deaths of their enemies: or that other protestation of L. Catilina, to set on fire and trouble states, to the end to fish in droumy waters, and to unwrap their fortunes, *Ego, si quid in fortunis meis excitatum sit incendium, id non aquâ, sed ruinâ restinguam:* or that other principle of Lysander, " that children are " to be deceived with comfits, and men with " oaths:" and the like evil and corrupt positions, whereof, as in all things, there are more in number than of the good: certainly, with these dispensations from the laws of charity and integrity, the pressing of a man's fortune may be more hasty and compendious. But it is in life as it is in ways, the shortest way is commonly the foulest, and surely the fairer way is not much about.

But men, if they be in their own power, and do bear and sustain themselves, and be not carried away with a whirlwind or tempest of ambition, ought, in the pursuit of their own fortune, to set before their eyes not only that general map of the world, that *all things are vanity and vexation of spirit*, but many other more particular cards and directions: chiefly that,—that being, without well-being, is a curse,—and the greater being the greater curse; and that all virtue is most rewarded, and all wickedness most punished in itself: according as the poet saith excellently:

To observe not only a general plan, but particular directions.

Quæ vobis, quæ digna, viri, pro laudibus istis
Præmia posse rear solvi? pulcherrima primum
Dî moresque dabunt vestri.

And so of the contrary. And, secondly, they ought to look up to the eternal providence and divine judgment, which often subverteth the wisdom of evil plots and imaginations, according to that Scripture, *He hath conceived mischief, and shall bring forth a vain thing.* And although men should refrain themselves from injury and evil arts, yet this

To look up to Providence.

incessant and sabbathless pursuit of a man's fortune leaveth not that tribute which we owe to God of our time; who we see, demandeth a tenth of our substance, and a seventh, which is more strict, of our time: and it is to small purpose to have an erected face towards heaven, and a perpetual groveling spirit upon earth, eating dust, as doth the serpent, *Atque affigit humo divinæ particulam auræ.* And if any man flatter himself that he will employ his fortune well, though he should obtain it ill, as was said concerning Augustus Cæsar, and after of Septimius Severus, "that either they should never have "been born, or else they should never have "died," they did so much mischief in the pursuit and ascent of their greatness, and so much good when they were established; yet these compensations and satisfactions are good to be used, but never good to be purposed.

Not to court Fortune too assiduously.

And lastly, it is not amiss for men, in their race towards their fortune, to cool themselves a little with that conceit which is elegantly expressed by the emperor Charles the fifth, in his instructions to the king his

son, "that fortune hath somewhat of the "nature of a woman, that if she be too "much wooed, she is the farther off." But this last is but a remedy for those whose tastes are corrupted: let men rather build upon that foundation which is as a corner-stone of divinity and philosophy, wherein they join close, namely, that same *Primùm quærite.* For divinity saith, *Primùm quærite regnum Dei, et ista omnia adjicientur vobis:* and philosophy saith, *Primum quærite bona animi, cætera aut aderunt, aut non oberunt.* And although the human foundation hath somewhat of the sands, as we see in M. Brutus, when he brake forth in that speech,

Te colùi, virtus, ut rem; ast tu nomen inane es:

yet the divine foundation is upon the rock. But this may serve for a taste of that knowledge which I noted as deficient.

3. Of Government.

Concerning Government, it is a part of knowledge secret and retired, in both these respects in which things are deemed secret; for some things are secret because they are hard to know, and some because they are

not fit to utter: we see all governments are obscure and invisible:

Totamque infusa per artus
Mens agitat molem, et magno se corpore miscet.

such is the description of governments. We see the government of God over the world is hidden, insomuch as it seemeth to participate of much irregularity and confusion: the government of the soul in moving the body is inward and profound, and the passages thereof hardly to be reduced to demonstration. Again, the wisdom of antiquity, (the shadows whereof are in the poets,) in the description of torments and pains, next unto the crime of rebellion, which was the giants' offence, doth detest the offence of facility, as in Sisyphus and Tantalus. But this was meant of particulars: nevertheless even unto the general rules and discourses of policy and government there is due a reverent and reserved handling.

How Governors should demean themselves towards the Governed.

But contrariwise, in the governors towards the governed, all things ought, as far as the frailty of man permitteth, to be manifest and revealed, For so it is expressed in the

Scriptures touching the government of God, that this globe, which seemeth to us a dark and shady body, is in the view of God as crystal, *Et in conspectu sedis tanquam mare vitreum simile crystallo.* So unto princes and states, specially towards wise senates and councils, the natures and dispositions of the people, their conditions and necessities, their factions and combinations, their animosities and discontents, ought to be, in regard of the variety of their intelligences, the wisdom of their observations, and the height of the station where they keep centinel, in great part clear and transparent. Wherefore, considering that I write to a king that is a master of this science, and is so well assisted, I think it decent to pass over this part in silence, as willing to obtain the certificate which one of the ancient philosophers aspired unto; who being silent, when others contended to make demonstration of their abilities by speech, desired it might be certified for his part, "that there was "one that knew how to hold his peace."

Of Laws.

Notwithstanding, for the more public part of government, which is *laws*, I think good to note only one deficiency; which is that

all those which have written of laws, have written either as philosophers or as lawyers, and none as statesmen. As for the philosophers, they make imaginary laws for imaginary commonwealths, and their discourses are as the stars, which give little light, because they are so high. For the lawyers, they write according to the states where they live, what is received law, and not what ought to be law: for the wisdom of a lawmaker is one, and of a lawyer is another. For there are in nature certain fountains of justice, whence all civil laws are derived but as streams: and like as waters do take tinctures and tastes from the soils through which they run, so do civil laws vary according to the regions and governments where they are planted, though they proceed from the same fountains. Again, the wisdom of a lawmaker consisteth not only in a platform of justice, but in the application thereof; taking into consideration by what means laws may be made certain, and what are the causes and remedies of the doubtfulness and incertainty of law; by what means laws may be made apt and easy to be executed, and what are the im-

pediments and remedies in the execution of laws; what influence laws touching private right of *meum* and *tuum* have into the public state, and how they may be made apt and agreeable; how laws are to be penned and delivered, whether in texts or in acts, brief or large, with preambles, or without; how they are to be pruned and reformed from time to time, and what is the best means to keep them from being too vast in volumes, or too full of multiplicity and crossness; how they are to be expounded, when upon causes emergent and judicially discussed, and when upon responses and conferences touching general points or questions; how they are to be pressed rigorously or tenderly; how they are to be mitigated by equity and good conscience, and whether discretion and strict law are to be mingled in the same courts, or kept apart in several courts; again, how the practice, profession, and erudition of law is to be censured and governed; and many other points touching the administration, and, as I may term it, animation of laws. Upon which I insist the less, because I purpose, if God give me leave, (having

begun a good work of this nature in aphorisms,) to propound it hereafter, noting it in the mean time for deficient.

Of the Laws of England.

And for your majesty's laws of England, I could say much of their dignity, and somewhat of their defect; but they cannot but excel the civil laws in fitness for the government: for the civil law was *Non hos quæsitum munus in usus;* it was not made for the countries which it governeth: hereof I cease to speak, because I will not intermingle matter of action with matter of general learning.

General conclusion.

Thus I have concluded this portion of learning touching *civil knowledge;* and with civil knowledge have concluded human philosophy; and with human philosophy, philosophy in general. And being now at some pause, looking back into that I have passed through, this writing seemeth to me, *(si nunquam fallit imago)* as far as a man can judge of his own work, not much better than that noise or sound which musicians make while they are in tuning their instruments; which is nothing pleasant to hear, but yet is a cause why

the music is sweeter afterwards: so have I been content to tune the instruments of the muses, that they may play that have better hands.

Advantages of modern times.

And surely, when I set before me the condition of these times, in which learning hath made her third visitation or circuit in all the qualities thereof—as the excellency and vivacity of the wits of this age; the noble helps and lights which we have by the travels of ancient writers; the art of printing, which communicateth books to men of all fortunes; the openness of the world by navigation, which hath disclosed multitudes of experiments, and a mass of natural history; the leisure wherewith these times abound, not employing men so generally in civil business, as the states of Græcia did, in respect of their popularity, and the state of Rome in respect of the greatness of their monarchy; the present disposition of these times at this instant to peace; the consumption of all that ever can be said in controversies of religion, which have so much diverted men from other sciences; the perfection of your majesty's learning, which

as a phœnix may call whole vollies of wits to follow you; and the inseparable propriety of time, which is ever more and more to disclose truth—I cannot but be raised to this persuasion, that this third period of time will far surpass that of the Græcian and Roman learning: only if men will know their own strength, and their own weakness both; and take one from the other light of invention, and not fire of contradiction; and esteem of the inquisition of truth as of an enterprise, and not as of a quality or ornament; and employ wit and magnificence to things of worth and excellency, and not to things vulgar and of popular estimation.

As for my labours, if any man shall please himself or others in the reprehension of them, they shall make that ancient and patient request, *Verbera, sed audi;* Let men reprehend them, so they observe and weigh them: for the appeal is lawful, though it may be it shall not be needful, from the first cogitations of men to their second, and from the nearer times to the times farther off. Now let us come to that learning, which both the

former times were not so blessed as to know, sacred and inspired Divinity, the sabbath and port of all men's labours and peregrinations.

DIVINITY.

The prerogative of God extendeth as well to the reason as to the will of man; so that as we are to obey his law, though we find a reluctation in our will, so we are to believe his word, though we find a reluctation in our reason. For if we believe only that which is agreeable to our sense, we give consent to the matter, and not to the author; which is no more than we would do towards a suspected and discredited witness: but that faith which was *accounted to Abraham for righteousness* was of such a point as whereat Sarah laughed, who therein was an image of natural reason.

Howbeit, if we will truly consider it, more worthy it is to believe than to know as we now know. For in knowledge man's mind suffereth from sense; but in belief it suf-

fereth from spirit, such one as it holdeth for more authorised than itself; and so suffereth from the worthier agent. Otherwise it is of the state of man glorified; for then faith shall cease, and *we shall know as we are known.*

What sacred Theology strictly is.

Wherefore we conclude that *sacred theology,* (which in our idiom we call *divinity,)* is grounded only upon the word and oracle of God, and not upon the light of nature: for it is written, *Cœli enarrant gloriam Dei;* but it is not written, *Cœli enarrant voluntatem Dei:* but of that it is said, *Ad legem et testimonium, si non fecerint secundum verbum istud, etc.* This holdeth not only in those points of faith which concern the great mysteries of the Deity, of the creation, of the redemption, but likewise those which concern the law moral truly interpreted; *Love your enemies: do good to them that hate you: be like to your heavenly Father, that suffereth his rain to fall upon the just and unjust.* To this it ought to be applauded; *Nec vox hominem sonat,* it is a voice beyond the light of nature. So we see the heathen poets, when they fall upon a libertine pas-

sion, do still expostulate with laws and moralities, as if they were opposite and malignant to nature; *Et quod natura remittit, Invida jura negant.* So said Dendamis the Indian unto Alexander's messengers; "That "he had heard somewhat of Pythagoras, "and some other of the wise men of Græ-"cia, and that he held them for excellent "men: but that they had a fault, which "was, that they had in too great reve-"rence and veneration a thing called law "and manners." So it must be confessed that a great part of the law moral is of that perfection, whereunto the light of nature cannot aspire: how then is it that man is said to have, by the light and law of nature, some notions and conceits of virtue and vice, justice and wrong, good and evil? Thus, because the light of nature is used in two several senses; the one, that which springeth from reason, sense, induction, argument, according to the laws of heaven and earth; the other, that which is imprinted upon the spirit of man by an inward instinct, according to the law of conscience, which is a sparkle of the purity of his first estate: in which

latter sense only he is participant of some light and discerning touching the perfection of the moral law: but how? sufficient to check the vice, but not to inform the duty. So then the doctrine of religion, as well moral as mystical, is not to be attained but by inspiration and revelation of God.

The use of Reason in Religion.

The use, notwithstanding, of reason in spiritual things, and the latitude thereof, is very great and general: for it is not for nothing that the apostle calleth religion our *reasonable service* of God; insomuch as the very ceremonies and figures of the old law were full of reason and signification, much more than the ceremonies of idolatry and magic, that are full of non-significants and surd characters. But most especially the Christian Faith, as in all things so in this, deserveth to be highly magnified, holding and preserving mediocrity in this point between the law of the heathen and the law of Mahomet, which have embraced the two extremes. For the religion of the heathen had no constant belief or confession, but left all to the liberty of argument; and the religion of Mahomet, on the other side, interdicteth argument al-

together : the one having the very face of error, and the other of imposture ; whereas the faith doth both admit and reject disputation with difference.

The use of human reason in religion is of two sorts : the former, in the conception and apprehension of the mysteries of God to us revealed ; the other, in the inferring and deriving of doctrine and direction thereupon. The former extendeth to the mysteries themselves ; but how ? by way of illustration, and not by way of argument : the latter consisteth indeed of probation and argument. In the former, we see, God vouchsafeth to descend to our capacity, in the expressing of his mysteries in such sort as may be sensible unto us ; and doth graft his revelations and holy doctrine upon the notions of our reason, and applieth his inspirations to open our understanding, as the form of the key to the ward of the lock : for the latter, there is allowed us an use of reason and argument, secondary and respective, although not original and absolute. For after the articles and principles of religion are placed and exempted from exami-

nation of reason, it is then permitted unto us to make derivations and inferences from, and according to the analogy of them, for our better direction. In nature this holdeth not; for both the principles are examinable by induction, though not by a medium or syllogism; and besides, those principles or first positions have no discordance with that reason which draweth down and deduceth the inferior positions. But yet it holdeth not in religion alone, but in many knowledges, both of greater and smaller nature, namely, wherein there are not only *posita* but *placita;* for in such there can be no use of absolute reason: we see it familiarly in games of wit, as chess, or the like: the draughts and first laws of the game are positive, but how? merely *ad placitum,* and not examinable by reason; but then how to direct our play thereupon with best advantage to win the game, is artificial and rational. So in human laws, there may be grounds and maxims which are *placita juris,* positive upon authority, and not upon reason, and therefore not to be disputed: but what is most just, not absolutely but relatively,

and according to those maxims, that affordeth a long field of disputation. Such therefore is that secondary reason, which hath place in divinity, which is grounded upon the *placets* of God.

Here therefore I note this deficiency, that there hath not been, to my understanding, sufficiently enquired and handled the true limits and use of reason in spiritual things, as a kind of divine dialectic: which for that it is not done, it seemeth to me a thing usual, by pretext of true conceiving that which is revealed, to search and mine into that which is not revealed; and by pretext of enucleating inferences and contradictories, to examine that which is positive: the one sort falling into the error of Nicodemus, demanding to have things made more sensible than it pleaseth God to reveal them, *Quomodo possit homo nasci, cum sit senex?* the other into the error of the disciples, which were scandalized at a shew of contradiction, *Quid est hoc, quod dicit nobis? Modicum et non videbitis me, et iterum modicum, et videbitis me, etc.*

Upon this I have insisted the more, in

regard of the great and blessed use thereof; for this point, well laboured and defined of, would in my judgment be an opiate to stay and bridle not only the vanity of curious speculations, wherewith the schools labor, but the fury of controversies, wherewith the church laboureth. For it cannot but open men's eyes, to see that many controversies do merely pertain to that which is either not revealed, or positive; and that many others do grow upon weak and obscure inferences or derivations: which latter sort, if men would revive the blessed stile of that great doctor of the Gentiles, would be carried thus; *Ego, non Dominus;* and again, *Secundum consilium meum;* in opinions and counsels, and not in positions and oppositions. But men are now over-ready to usurp the stile, *Non ego, sed Dominus;* and not so only, but to bind it with the thunder and denunciation of curses and anathemas, to the terror of those which have not sufficiently learned out of Solomon, that *the causeless curse shall not come.*

Two principal parts of Divinity.

Divinity hath two principal parts; the matter informed or revealed, and the nature of

the information or revelation: and with the latter we will begin, because it hath most coherence with that which we have now last handled.

1. The Nature of the Revelation.

The *nature of the information* consisteth of three branches; the *limits* of the information, the *sufficiency* of the information, and the *acquiring* or obtaining the information. Unto the Limits of the information belong these considerations; how far forth particular persons continue to be inspired; how far forth the church is inspired; and how far forth reason may be used: the last point whereof I have noted as deficient. Unto the Sufficiency of the information belong two considerations; what points of religion are fundamental, and what perfective, being matter of farther building and perfection upon one and the same foundation; and again, how the gradations of light, according to the dispensation of times, are material to the sufficiency of belief.

Here again I may rather give it in advice than note it as deficient, that the points fundamental, and the points of farther perfection only, ought to be with piety and wisdom

distinguished; a subject tending to much like end as that I noted before; for as that other were likely to abate the number of controversies, so this is like to abate the heat of many of them. We see Moses when he saw the Israelite and the Ægyptian fight, he did not say, *Why strive you?* but drew his sword and slew the Ægyptian: but when he saw the two Israelites fight, he said, *You are brethren, why strive you?* If the point of doctrine be an Ægyptian, it must be slain by *the sword of the Spirit,* and not reconciled: but if it be an Israelite, though in the wrong, then, *Why strive you?* We see of the fundamental points, our Saviour penneth the league thus, *He that is not with us, is against us;* but of points not fundamental, thus; *He that is not against us, is with us.* So we see the coat of our Saviour was intire without seam, and so is the doctrine of the Scriptures in itself; but the garment of the church was of divers colours, and yet not divided: we see the chaff may and ought to be severed from the corn in the ear, but the tares may not be pulled up from the corn in the field. So as it

is a thing of great use well to define what, and of what latitude those points are, which do make men merely aliens and disincorporate from the church of God.

For the *obtaining of the information*, it resteth upon the true and sound interpretation of the Scriptures, which are the fountains of the water of life. The interpretations of the Scriptures are of two sorts; *methodical*, and *solute* or at large. For this divine water, which excelleth so much that of Jacob's well, is drawn forth much in the same kind as natural water useth to be out of wells and fountains; either it is first forced up into a cistern, and from thence fetched and derived for use; or else it is drawn and received in buckets and vessels immediately where it springeth: the former sort whereof, though it seem to be the more ready, yet in my judgment is more subject to corrupt. This is that method which hath exhibited unto us the scholastical divinity; whereby divinity hath been reduced into an art, as into a cistern, and the streams of doctrine or positions fetched and derived from thence.

Two kinds of Interpretation of Scripture;

The methodical;

In this men sought three things, a summary brevity, a compacted strength, and a complete perfection; whereof the two first they fail to find, and the last they ought not to seek. For as to brevity, we see, in all summary methods, while men purpose to abridge, they give cause to dilate. For the sum or abridgment by contraction becometh obscure; the obscurity requireth exposition, and the exposition is deduced into large commentaries, or into common places and titles, which grow to be more vast than the original writings, whence the sum was at first extracted. So, we see, the volumes of the schoolmen are greater much than the first writings of the fathers, whence the master of the sentences made his sum or collection. So, in like manner, the volumes of the modern doctors of the civil law exceed those of the ancient jurisconsults, of which Tribonian compiled the digest. So as this course of sums and commentaries is that which doth infallibly make the body of sciences more immense in quantity and more base in substance.

And for strength, it is true that know-

ledges reduced into exact methods have a shew of strength, in that each part seemeth to support and sustain the other; but this is more satisfactory than substantial: like unto buildings which stand by architecture and compaction, which are more subject to ruin than those that are built more strong in their several parts, though less compacted. But it is plain that the more you recede from your grounds, the weaker do you conclude: and as in nature, the more you remove yourself from particulars, the greater peril of error you do incur; so much more in divinity, the more you recede from the Scriptures by inferences and consequences, the more weak and dilute are your positions.

And as for perfection or completeness in divinity, it is not to be sought; which makes this course of artificial divinity the more suspect. For he that will reduce a knowledge into an art, will make it round and uniform: but in divinity many things must be left abrupt, and concluded with this; *O altitudo sapientiæ et scientiæ Dei! quàm incomprehensibilia sunt judicia ejus, et non investigabiles viæ ejus!* So again the apostle

saith *Ex parte scimus:* and to have the form of a total, where there is but matter for a part, cannot be without supplies by supposition and presumption. And therefore I conclude that the true use of these sums and methods hath place in institutions or introductions preparatory unto knowledge; but in them, or by deducement from them, to handle the main body and substance of a knowledge, is in all sciences prejudicial, and in divinity dangerous.

The solute.

As to the interpretation of the Scriptures solute and at large, there have been divers kinds introduced and devised; some of them rather curious and unsafe than sober and warranted. Notwithstanding, thus much must be confessed, that the Scriptures being given by inspiration, and not by human reason, do differ from all other books in the author; which by consequence doth draw on some difference to be used by the expositor. For the inditer of them did know four things which no man attains to know; which are the mysteries of the kingdom of glory, the perfection of the laws of nature, the secrets of the heart of man, and the

future succession of all ages. For as to the first, it is said, *He that presseth into the light, shall be oppressed of the glory.* And again, *No man shall see my face and live.* To the second, *When he prepared the heavens, I was present, when by law and compass he inclosed the deep.* To the third, *Neither was it needful that any should bear witness to him of man, for he knew well what was in man.* And to the last, *From the beginning are known to the Lord all his works.*

From the former of these two have been drawn certain senses and expositions of Scriptures, which had need be contained within the bounds of sobriety; the one *anagogical,* and the other *philosophical.* But as to the former, man is not to prevent his time; *Videmus nunc per speculum in ænigmate, tunc autem facie ad faciem;* wherein, nevertheless, there seemeth to be a liberty granted, as far forth as the polishing of this glass, or some moderate explication of this enigma. But to press too far into it, cannot but cause a dissolution and overthrow of the spirit of man: for in the body there are three degrees of that we receive into it, aliment,

medicine, and poison; whereof aliment is that which the nature of man can perfectly alter and overcome; medicine is that which is partly converted by nature, and partly converteth nature; and poison is that which worketh wholly upon nature, without that, that nature can in any part work upon it: so in the mind, whatsoever knowledge reason cannot at all work upon and convert, is a mere intoxication, and endangereth a dissolution of the mind and understanding.

But for the latter, it hath been extremely set on foot of late time by the school of Paracelsus, and some others, that have pretended to find the truth of all natural philosophy in the Scriptures; scandalizing and traducing all other philosophy as heathenish and profane. But there is no such enmity between God's word and his works; neither do they give honour to the Scriptures, as they suppose, but much imbase them. For to seek heaven and earth in the word of God, (whereof it is said, *heaven and earth shall pass but my word shall not pass,)* is to seek temporary things amongst eternal; and as to seek divinity in philosophy is to seek

the living amongst the dead, so to seek philosophy in divinity is to seek the dead amongst the living: neither are the pots or lavers, whose place is in the outward part of the temple, to be sought in the holiest place of all, where the ark of the testimony was seated. And again, the scope or purpose of the Spirit of God is not to express matters of nature in the Scriptures, otherwise than in passage, and for application to man's capacity, and to matters moral or divine. And it is a true rule, *Auctoris aliud agentis parva auctoritas:* for it were a strange conclusion, if a man should use a similitude for ornament or illustration sake, borrowed from nature or history according to vulgar conceit, as of a basilisk, an unicorn, a centaur, a Briareus, an Hydra, or the like, that therefore he must needs be thought to affirm the matter thereof positively to be true. To conclude therefore, these two interpretations, the one by reduction or enigmatical, the other philosophical or physical, which have been received and pursued in imitation of the rabbins and

cabalists, are to be confined with a *noli altum sapere, sed time.*

True ground of difference in interpreting Scripture and profane books.

But the two latter points, known to God, and unknown to man, touching *the secrets of the heart,* and *the successions of time,* do make a just and sound difference between the manner of the exposition of the Scriptures and all other books. For it is an excellent observation which hath been made upon the answers of our Saviour Christ to many of the questions which were propounded to him, how that they are impertinent to the state of the question demanded: ed: the reason whereof is because, not being like man, which knows man's thoughts by his words, but knowing man's thoughts immediately, he never answered their words, but their thoughts: much in the like manner it is with the Scriptures, which being written to the thoughts of men, and to the succession of all ages, with a foresight of all heresies, contradictions, differing estates of the church, yea and particularly of the elect, are not to be interpreted only according to the latitude of the proper sense of the place,

and respectively towards that present occasion, whereupon the words were uttered, or in precise congruity or contexture with the words before or after, or in contemplation of the principal scope of the place; but have in themselves, not only totally or collectively, but distributively in clauses and words, infinite springs and streams of doctrine to water the church in every part. And therefore as the literal sense is, as it were, the main stream or river, so the moral sense chiefly, and sometimes the allegorical or typical are they whereof the church hath most use: not that I wish men to be bold in allegories, or indulgent or light in allusions; but that I do much condemn that interpretation of the Scripture which is only after the manner as men use to interpret a profane book.

In this part, touching *the exposition of the Scriptures* I can report no deficience; but by way of remembrance, this I will add, in perusing books of divinity; I find many books of controversies, and many of common places and treatises, a mass of positive divinity, as it is made an art, a number of ser-

mons and lectures, and many prolix commentaries upon the Scriptures, with harmonies and concordances: but that form of writing in divinity, which in my judgment is of all others most rich and precious, is positive divinity, collected upon particular texts of Scriptures in brief observations; not dilated into common places, not chasing after controversies, not reduced into method of art; a thing abounding in sermons, which will vanish, but defective in books which will remain; and a thing wherein this age excelleth. For I am persuaded, (and I may speak it with an *Absit invidia verbo*, and no ways in derogation of antiquity, but as in a good emulation between the vine and the olive,) that if the choice and best of those observations upon texts of Scriptures, which have been made dispersedly in sermons within this your majesty's island of Britain by the space of these forty years and more, leaving out the largeness of exhortations and applications thereupon, had been set down in a continuance, it had been the best work in divinity which had been written since the apostles' times.

2. The matter revealed.

The *matter informed* by divinity is of two kinds; *matter of belief and truth of opinion;* and *matter of service and adoration;* which is also judged and directed by the former; the one being as the internal soul of religion, and the other as the external body thereof. And therefore the heathen religion was not only a worship of idols, but the whole religion was an idol in itself; for it had no soul, that is, no certainty of belief or confession; as a man may well think, considering the chief doctors of their church were the poets: and the reason was, because the heathen gods were no jealous gods, but were glad to be admitted into part, as they had reason. Neither did they respect the pureness of heart, so they might have external honor and rites.

Four main branches of Divinity.

But out of these two do result and issue four main branches of divinity; *faith, manners, liturgy,* and *government.* Faith containeth the doctrine of the nature of God, of the attributes of God, and of the works of God. The nature of God consisteth of three persons in unity of Godhead. The attributes of God are either common to the Deity, or respective to the persons. The works of God

summary are two, that of the creation, and that of the redemption; and both these works, as in total they appertain to the unity of the Godhead, so in their parts they refer to the three persons: that of the creation, in the mass of the matter, to the Father; in the disposition of the form, to the Son; and in the continuance and conservation of the being, to the Holy Spirit: so that of the redemption, in the election and counsel, to the Father; in the whole act and consummation, to the Son; and in the application, to the Holy Spirit: for by the Holy Ghost was Christ conceived in flesh, and by the Holy Ghost are the elect regenerated in spirit. This work likewise we consider either effectually, in the elect; or privately, in the reprobate; or according to appearance in the visible church.

For Manners, the doctrine thereof is contained in the Law, which discloseth sin. The Law itself is divided, according to the *edition* thereof, into the law of nature, the law moral, and the law positive; and according to the *stile*, into negative and affirmative, prohibitions and commandments. Sin, in the mat-

ter and subject thereof, is divided according to the commandments; in the form thereof, it referreth to the three persons in Deity: Sins of infirmity against the Father, whose more special attribute is power; sins of ignorance against the Son, whose attribute is wisdom; and sins of malice against the Holy Ghost, whose attribute is grace or love. In the motions of it, it either moveth to the right hand or to the left; either to blind devotion, or to profane and libertine transgression; either in imposing restraint where God granteth liberty, or in taking liberty where God imposeth restraint. In the degrees and progress of it, it divideth itself into thought, word, or act. And in this part I commend much the deducing of the law of God to cases of conscience; for that I take indeed to be a breaking, and not exhibiting whole of the bread of life. But that which quickeneth both these doctrines of faith and manners, is the elevation and consent of the heart; whereunto appertain books of exhortation, holy meditation, christian resolution, and the like.

For the Liturgy or service, it consisteth of

the reciprocal acts between God and man; which, on the part of God, are the preaching of the word, and the sacraments, which are seals to the covenant, or as the visible word; and on the part of man, invocation of the name of God; and, under the law, sacrifices; which were as visible prayers or confessions: but now the adoration being *in spiritu et veritate*, there remaineth only *vituli labiorum;* although the use of holy vows of thankfulness and retribution may be accounted also as sealed petitions.

And for the government of the church, it consisteth of the patrimony of the church, the franchises of the church, and the offices and jurisdictions of the church, and the laws of the church directing the whole; all which have two considerations, the one in themselves, the other how they stand compatible and agreeable to the civil estate.

This *matter of divinity* is handled either in form of instruction of truth, or in form of confutation of falsehood. The declinations from religion, besides the primitive, which is atheism, and the branches thereof, are three; *heresies, idolatry,* and *witchcraft:* He-

resies, when we serve the true God with a false worship; Idolatry, when we worship false gods, supposing them to be true; and Witchcraft, when we adore false gods, knowing them to be wicked and false: for so your majesty doth excellently well observe, that witchcraft is the height of idolatry. And yet we see though these be true degrees, Samuel teacheth us that they are all of a nature, when there is once a receding from the word of God: for so he saith, *Quasi peccatum ariolandi est repugnare, et quasi scelus idololatriæ nolle acquiescere.*

These things I have passed over so briefly because I can report no deficiency concerning them: for I can find no space or ground that lieth vacant and unsown in the matter of divinity; so diligent have men been, either in sowing of good seed, or in sowing of tares.

Conclusion of this general survey of learning.

THUS have I made as it were a small Globe of the Intellectual world, as truly and faithfully as I could discover; with a note and

description of those parts which seem to me not constantly occupate, or not well converted by the labour of man. In which, if I have in any point receded from that which is commonly received, it hath been with a purpose of proceeding *in melius*, and not *in aliud;* a mind of amendment and proficience, and not of change and difference. For I could not be true and constant to the argument I handle, if I were not willing to go beyond others; but yet not more willing than to have others go beyond me again: which may the better appear by this, that I have propounded my opinions naked and unarmed, not seeking to preoccupate the liberty of men's judgments by confutations. For in any thing which is well set down, I am in good hope, that if the first reading move an objection, the second reading will make an answer. And in those things wherein I have erred, I am sure, I have not prejudiced the right by litigious arguments; which certainly have this contrary effect and operation, that they add authority to error, and destroy the authority of that which is well invented: for question is an honor and preferment to falsehood,

as on the other side it is a repulse to truth. But the errors I claim and challenge to myself as my own: the good, if any be, is due *tanquam adeps sacrificii*, to be incensed to the honour first of the Divine Majesty, and next of your majesty, to whom on earth I am most bounden.

THE END.

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